91602
new 82-10

LEGAL NOTICE

This report was prepared by Ontario Hydro and, while effort has been made to assure the accuracy and applicability of the material contained herein, neither Ontario Hydro nor any person acting on its behalf:

(a) makes any warranty, express or implied with respect to the use of any information, apparatus, method or process disclosed in this report or that such use may not infringe privately owned rights; or

(b) assumes any liabilities with respect to the use of, or for damages resulting from the use of, any information, apparatus, method or process disclosed in this report.

COMPLIMENTARY COPY
Please Credit Ontario Hydro Research if Reproduced in Whole or in Part

ontario hydro
research division

DARLINGTON NGS PREOPERATIONAL AQUATIC STUDIES GILL NET SUMMARY 1984 - 1988

Report No 90-54-K

R.W. Sheehan
Biologist
Biological Research Section
Chemical Research Department

ABSTRACT

The results of the 1984 to 1988 Darlington NGS preoperational gill net study are presented. A total of twenty-five fish species were collected. Alewife was the dominant species comprising greater than 83 per cent of the total catch each sampling year. Rainbow smelt and round whitefish were also relatively abundant in 1984 and 1985 while round whitefish and lake trout were common species from 1986 to 1988. The average catches increased from 1984 to 1986, then levelled off from 1986 to 1988. This pattern was related to the alewife catches. Lake trout catches were highest in 1986 and lowest in 1984 and 1985. Rainbow smelt catches declined from 1984 to low catches in 1987 and 1988. Alewife were most abundant in July and May. Lake trout were collected primarily in October while round whitefish were collected mainly in December. The distributions of alewife and lake trout were similar at all sampling locations. Round whitefish were most abundant west of the station but were not significantly more abundant than at other sites. Bottom gill net catches were significantly greater than surface net catches.

job	file	date	report no.
34-194-492	837.321 DAR	January 24, 1991	90-54-K

91602
new 82-10

91-07166/

ontario hydro
research division

EXECUTIVE SUMMARY

DARLINGTON NGS PREOPERATIONAL AQUATIC STUDIES GILL NET SUMMARY 1984 - 1988

Report No 90-54-K

R.W. Sheehan
Biologist
Biological Research Section
Chemical Research Department

The results of the 1984 - 1988 Darlington NGS preoperational gill net studies are presented. The netting studies were conducted as part of the Darlington NGS environmental monitoring program at the request of Environmental Studies and Assessments Department of Design and Development Division - Generation. The objectives of the study were to monitor the relative abundance and species composition of fish within the vicinity of Darlington NGS with emphasis on cold water species. This information will be used to assist in the determination of the effects of station operation on the fish community within the vicinity of Darlington NGS.

Twenty-five fish species were collected. Alewife was the dominant fish species and comprised more than 83% of the total fish catch each year. Rainbow smelt and round whitefish were the next most abundant species in 1984. Round whitefish was the next dominant species to alewife from 1985 to 1988 followed by rainbow smelt (1985) and lake trout (1986 - 1988).

The average gill net catch increased from 1984 to 1986 and then generally levelled off in succeeding years. Alewife catches, responsible for this trend, increased from 79.2 fish per net in 1984 to 162.4 fish per net in 1986. Similar catches were recorded in 1987 (157.7 fish per net) and 1988 (169.0 fish per net).

Lake trout was the dominant salmonid collected. Lake trout catches increased substantially from 1984 and 1985 (1.7 fish per net) to 1986 (6.4 fish per net). The catches then declined in 1987 and 1988 (4.4 fish per net). The yearly differences in lake trout abundance were significant.

Brown trout was the second most abundant salmonid. The average brown trout catches ranged from 0.8 (1985) to 1.7 (1986) fish per net. The average catches of rainbow trout and Pacific salmon were less than one fish per net in all sampling years. Rainbow smelt was the second most abundant species in 1984 (7.8 smelt per net). However rainbow smelt abundance declined in succeeding years to 0.4 and 0.5 smelt per net in 1987 and 1988.

job	file	date	report no.
34-194-492	837.321 DAR	January 24, 1991	90-54-K

Average round whitefish catches (bottom nets only) peaked in 1986 when 12.4 fish were collected per net. The 1984 average catch was only 3.9 fish per net while 6.5 fish per net were collected in 1988. The yearly variation in round whitefish abundance was not significant.

White sucker was the dominant sucker species collected. White sucker were most abundant in 1986 (4.9 fish per net) and lowest in 1984 and 1985 (2.1 fish per net respectively).

Alewife were usually most abundant in July and May. Alewife catches decreased rapidly following the peak July catches to generally zero average catches in November and December. The variation in monthly alewife catches was significant

Significant variation was determined in monthly lake trout catches. Lake trout were present primarily in October with lower catches in May and November. The majority of lake trout had dispersed from the inshore sampling locations by December.

Round whitefish catches generally increased from spring to fall with greatest abundances occurring in December. The variation in monthly catch was significant.

The average catches of alewife were similar at each sampling location while lake trout catches were generally greater at the east control. Round whitefish were more abundant at the west control. The variation in catches at sampling locations for each of these species were not significant.

Comparison of the average yearly surface and bottom gill net catches indicated the bottom gill net catches were significantly greater than the corresponding surface gill net catches.

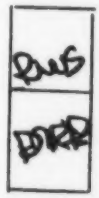


TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1
2.0	METHODS	1
3.0	RESULTS AND DISCUSSION	3
4.0	SUMMARY	6
5.0	ACKNOWLEDGEMENTS	7
REFERENCES		8
APPENDICES		16
DISTRIBUTION		last page

LIST OF TABLES

		Page
Table 2.0-1	Darlington Gill Net Sampling Schedule (Number of Net Sets Per Month), 1984 - 1988	3
Table 3.0-1	Darlington Dominant Fish Species, 1984 - 1988	4

LIST OF FIGURES

Figure 2.0-1	Darlington Gill Net Studies Site Map	2
Figure 3.0-1	Average Gill Net Catch of Alewife and All Species Darlington, 1984 - 1988	9
Figure 3.0-2	Average Gill Net Catch of Salmonids Darlington, 1984 - 1988	9
Figure 3.0-3	Average Gill Net Catch of Smelt Darlington, 1984 - 1988	10
Figure 3.0-4	Average Gill Net Catch of Round Whitefish and White Sucker Darlington, 1984 - 1988	10
Figure 3.0-5	Monthly Gill Net Catch for Alewife Darlington, 1984 - 1988	11
Figure 3.0-6	Monthly Gill Net Catch for Lake Trout Darlington, 1984 - 1988	11
Figure 3.0-7	Monthly Gill Net Catch in Bottom Nets for Round Whitefish Darlington, 1984 - 1988	12
Figure 3.0-8	Average Gill Net Catch by Location for Alewife Darlington, 1984 - 1988	12
Figure 3.0-9	Average Gill Net Catch by Location for Lake Trout Darlington, 1984 - 1988	13
Figure 3.0-10	Average Gill Net Catch by Location for Round Whitefish Darlington, 1984 - 1988	13
Figure 3.0-11	Annual Catch Comparison for Alewife Darlington - Pickering 1986 - 1988	14
Figure 3.0-12	Annual Catch Comparison for Lake Trout Darlington - Pickering 1986 - 1988	14

LIST OF FIGURES (cont'd)

		Page
Figure 3.0–13	Annual Catch Comparison for Round Whitefish Darlington – Pickering 1986 – 1988	15
Figure 3.0–14	Annual Catch Comparison for Brown Trout Darlington – Pickering 1986 – 1988	15

ontario hydro
research division

TO: Dr. W.R. Effer
Manager
Environmental Studies & Assesments
Design & Development Div - Gen

DARLINGTON NGS PREOPERATIONAL AQUATIC STUDIES GILL NET SUMMARY 1984 - 1988

1.0 INTRODUCTION

Darlington Nuclear Generating Station, located on the north shore of Lake Ontario approximately 64 km east of Toronto, has been under construction since 1977. Preoperational aquatic studies were conducted at the Darlington site from 1984 to 1988 as part of the environmental monitoring program. The studies were conducted by Biological Research at the request of Environmental Studies and Assessments Department of Design and Development Division - Generation. Fish were sampled during each of the preoperational years to monitor their relative abundance and species composition with emphasis on cold water species. This information will be used to assist in the determination of the effects of station operation on the fish community within the vicinity of Darlington NGS. This report presents the gill net catch data collected during the preoperational years.

2.0 METHODS

Preoperational juvenile and adult fish sampling was conducted primarily at four locations (A, D, F and H, Figure 2.0-1) at the Darlington NGS site. Sampling locations A (8 m depth) and D (11 m depth) were situated near the inshore and offshore ends of the 900 m long discharge diffuser, respectively. Locations F and H were reference sampling areas located near the 10 m depth contour west and east of the station respectively. Location F and location H were originally situated near McLaughlin Bay and Port Darlington. These locations were sampled from May through October 1984. In November 1984 locations F and H were altered permanently to positions approximately 2.5 km west and east of the station to avoid interfering with local marine traffic in the Port Darlington vicinity.

Four additional locations were sampled only in 1984 (Figure 2.0-1). Locations B and C were situated approximately 50 m west and east of and parallel to the diffuser near the 10 m depth contour. Reference locations E and G were situated near the 8 m depth contour inshore from sites F and H. Locations E and G were moved in November 1984 to positions approximately 2.5 km west and east of the station.

Gill nets were used to sample the juvenile and adult fish populations. Each net consisted of 8 experimental panels (15.2 m long x 1.5 m deep) constructed of white multifilament nylon. Mesh sizes (stretched measure) ranged from 3.8 cm to 12.5 cm in increasing 1.3 cm increments. All nets were fished with the smallest mesh panel inshore.

Bottom and surface nets were set at each sampling location. Each net was set for a 24 h period, lake and weather conditions permitting. Bottom and surface nets were fished at the same sampling location on consecutive 24 h periods during the same sampling week whenever possible. Water temperatures were recorded at the inshore and offshore ends of each net upon setting and retrieval.

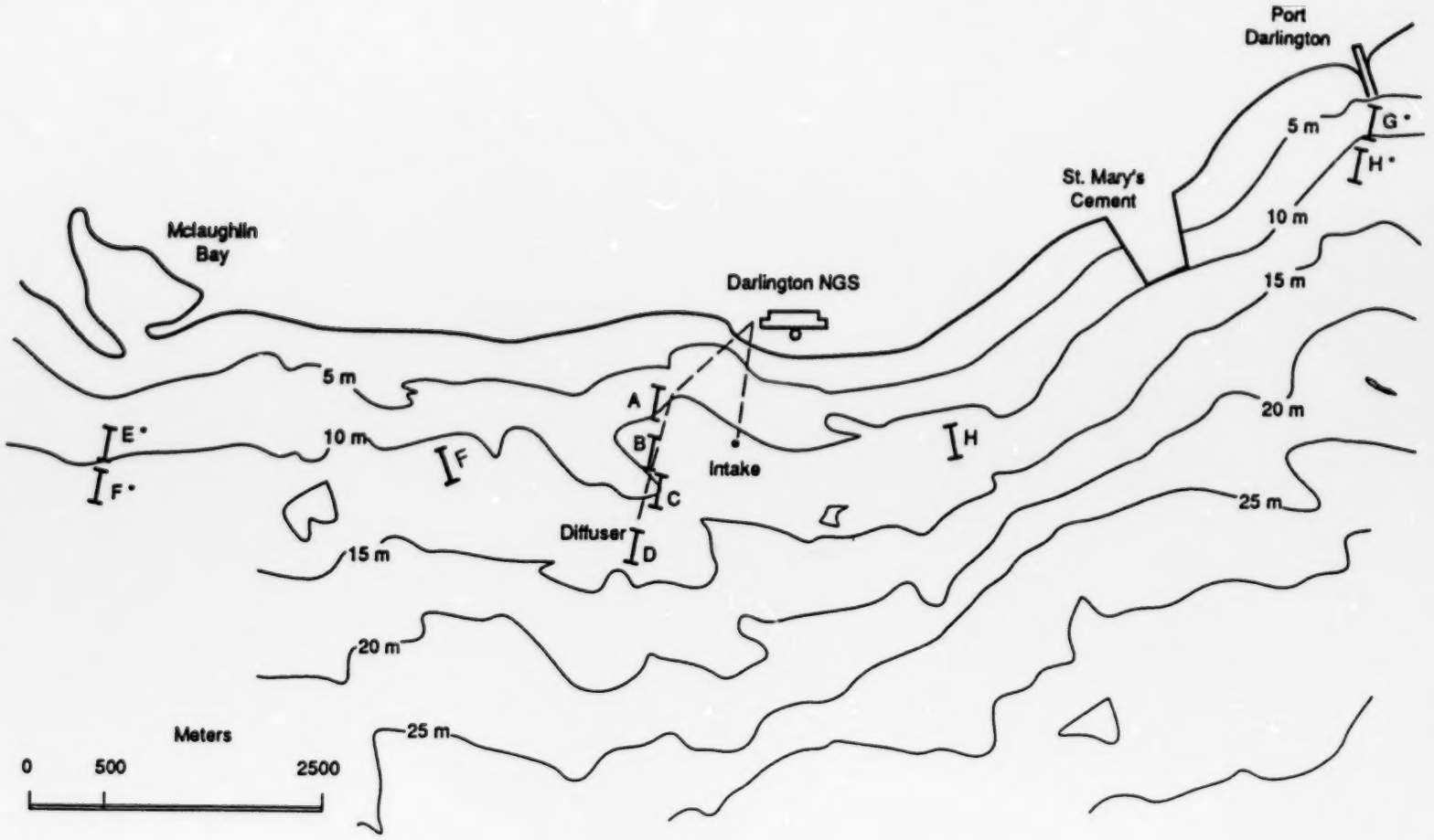


FIGURE 2.0-1

DARLINGTON GILL NET STUDIES
SITE MAP

Sampling frequency was scheduled as twice in the months of May, July, October and November and once in December each year (Table 2.0-1). The twice monthly sampling periods were separated by a minimum of six days in order to investigate short-term variability (weekly). Sampling was conducted only at sites A and D (bottom) in May 1984 while the Darlington preoperational aquatic sampling program was being prepared. Weather and lake conditions prevented completion of scheduled sampling on other dates primarily in November and December.

All fish collected were identified to species and enumerated. Meristic data (fork length and weight), scales and maturity data were collected from salmonids and coregonids whenever possible. All external marks, tags and parasites were recorded from salmonids and coregonids. All viable fish were released. Meristic data will be presented elsewhere.

3.0 RESULTS AND DISCUSSION

The yearly (1986 to 1988) Darlington gill net fish catch results from locations A, D, F and H are presented in Appendix A. The 1984 and 1985 catch results were presented in OHRD Reports Nos 87-82-K and 89-166-K. Analysis and discussions of fish catch results concern these locations unless otherwise specified. The 1984 gill net catch results from locations B, C, E and G were presented in OHRD Report 87-82-K. Water temperatures associated with the 1986 - 1988 gill netting studies are presented in Appendix B.

A total of twenty-five fish species were collected during the Darlington NGS preoperational juvenile and adult fish surveys (Appendix C). Alewife was the dominant fish species comprising greater than 83.3% of the total fish catch during each sampling year (Table 3.0-1). Rainbow smelt and round

TABLE 2.0-1

DARLINGTON GILL NET SAMPLING SCHEDULE (NUMBER OF NET SETS PER MONTH) 1984 - 1988

YEAR	MONTH											
	MAY		JULY		OCT.		NOV.		DEC.		TOTAL	
	S*	B*	S	B	S	B	S	B	S	B	S	B
1984	0	2	9	8	8	8	8	8	0	4	25	30
1985	8	8	8	8	8	8	4	4	4	4	32	32
1986	8	8	4	4	8	8	8	8	0	5	28	33
1987	8	8	8	8	9	8	4	4	8	8	37	36
1988	8	8	8	8	8	8	8	8	0	4	32	36
TOTAL	32	34	37	36	41	40	32	32	12	25	154	167

* S - SURFACE NET SET B - BOTTOM NET SET

whitefish were the next most abundant species in 1984, comprising 8.2% and 2.2% of the catch respectively. This order was reversed in 1985 when round whitefish (2.3%) and rainbow smelt (1.5 %) were the next abundant species. In all succeeding years (1986 to 1988), round whitefish and lake trout were the next most common species after alewife. The round whitefish and lake trout catches were similar in 1986 (3.7% and 3.5%), 1987 (2.4% and 2.4%) and 1988 (2.6% and 1.9%).

The average Darlington gill net catch increased from 1984 (95.1 fish per net) to 1986 (182.3 fish per net, Figure 3.0–1). Average catches were generally similar in succeeding years. The average catches of alewife, the dominant species, accounted for this trend. The alewife catches increased from 79.2 fish per net in 1984 to 162.4 fish per net in 1986. The alewife catch decreased slightly in 1987 (157.7 fish per net) but increased in 1988 (169.0 fish per net). The variation in yearly alewife catch was not significant (Appendix D).

Lake trout was the dominant salmonid collected throughout the preoperational study (Figure 3.0–2). The average lake trout catch per net was similar in 1984 (1.7 fish per net) and 1985 (1.6 fish per net) but increased substantially in 1986 to 6.4 fish per net. Lake trout catches then declined slightly in 1987 and 1988 (4.1 and 4.7 fish per net, respectively). The differences in the yearly lake trout catches were significant (Appendix D).

TABLE 3.0–1

DARLINGTON DOMINANT FISH SPECIES
1984 – 1988

1984		1985		1986	
SPECIES	%	SPECIES	%	SPECIES	%
Alewife	83.3	Alewife	92.3	Alewife	89.1
Rainbow smelt	8.2	Round whitefish	2.3	Round whitefish	3.7
Round whitefish	2.2	Rainbow smelt	1.5	Lake trout	3.5
Lake trout	1.8	Lake trout	1.2	White sucker	1.5
Brown trout	1.4	White sucker	0.8	Brown trout	0.6

1987		1988	
SPECIES	%	SPECIES	%
Alewife	91.9	Alewife	92.1
Lake trout	2.4	Lake trout	2.6
Round whitefish	2.4	Round whitefish	1.9
White sucker	1.0	White sucker	1.1
Brown trout	0.6	Brown trout	0.9

Brown trout was the second most abundant salmonid. The 1984, 1986 and 1987 average brown trout catches were similar ranging from 1.1 to 1.3 fish per net. The average brown trout catches were only slightly lower in 1985 (0.8 fish per net) and slightly higher in 1986 (1.7 fish per net).

The average catches of rainbow trout and Pacific salmon were less than one fish per net in all sampling years.

Rainbow smelt was the second most common species in 1984 with an average catch of 7.8 smelt per net (Figure 3.0-3). However the average rainbow smelt catch declined to 0.4 and 0.5 smelt per net in 1987 and 1988, respectively.

The yearly average catches of round whitefish (bottom nets only) increased from 1984 (3.9 fish per net) to 1986 (12.4 fish per net) but then declined through 1987 and 1988 (8.4 and 6.5 fish per net respectively, Figure 3.0-4). The variation in yearly catches was not significant (Appendix D).

The average catches of sucker spp. (bottom nets only) were generally low. White sucker was the dominant sucker species collected in all sampling years. The greatest white sucker catches occurred in 1986 when 4.9 suckers were collected per net. The lowest white sucker catches occurred in 1984 and 1985 (2.1 fish per net respectively).

Alewife were usually most abundant in July and May (Figure 3.0-5). July alewife catches exceeded May catches in all years except for 1984. The alewife catch declined rapidly from the peak July catches through October to generally zero average catches in November and December. The variation in monthly alewife catches was significant (Appendix D).

The number of lake trout collected tended to be highest in October during the early spawning period (Figure 3.0-6). Lower numbers were collected in May and November, the late spawning period. The majority of lake trout had dispersed from the inshore sampling locations by December. The variation in monthly catch was determined to be significant (Appendix D).

Round whitefish catches generally increased from spring to fall. Maximum catches occurred each year in the December spawning period (Figure 3.0-7). The variation in the monthly catches was significant (Appendix D).

The average catches of alewife from 1984 - 1988 were generally similar at each of the sampling locations (Figure 3.0-8). The minimum (45.7 fish per net) and maximum (195.3 fish per net) alewife catches at sampling sites occurred at the offshore diffuser sampling location D. No significant variation was determined for differences in sampling location alewife catches (Appendix D).

Lake trout catches were generally higher at the east control (location H) while the lowest average lake trout catches were found at the offshore end of the diffuser (location D, Figure 3.0-9). The maximum average difference between sampling locations was 1.9 fish per net. The variation in catches at sampling location was not significant (Appendix D).

Round whitefish were more abundant west of Darlington NGS (Figure 3.0-10). The highest average catches occurred at the west control (location F, 8.9 fish per net) and the inshore end of the diffuser (location A, 8.7 fish per net). The fewest round whitefish (average catch = 4.8 fish per net) were collected at the offshore end of the diffuser (location D). No significant differences were determined for the variation in round whitefish catches at sampling locations (Appendix D).

Bottom and surface net catches were compared for differences in species composition. Bottom nets collected twenty-four of the twenty-five fish species collected at the Darlington NGS site. Surface nets collected a total of nineteen fish species. Longnose gar (n = 2) were only present in the surface nets while longnose sucker (n = 1), carp (n = 1), smallmouth bass (n = 2), yellow perch (n = 18), walleye (n = 2) and sculpin spp (n = 1) were only collected in the bottom nets.

The greatest number of fish were collected in the bottom nets. The 1985 to 1988 bottom gill net catch (n = 26 991 fish) was approximately double the corresponding surface net catch (n = 13 073 fish). The variation between surface and bottom net catches was determined to be significant (Appendix D).

The 1986 to 1988 yearly Darlington NGS catches of alewife, lake trout, round whitefish and brown trout were compared with yearly catches (same sampling months) at Pickering NGS 'B' control locations (OHRD Reports 87-194-K, 88-261-K and 89-149-K). The yearly catches of these species at the two station sites did not appear to follow the same relative trends (Figures 3.0-11 - 14).

4.0 SUMMARY

a) Twenty-five fish species were collected during the Darlington preoperational study.

b) The average gill net catch increased from 1984 to 1986 with similar catches from 1986 to 1988.

c) Alewife was the most common species in all sampling years comprising a minimum of 83.3 % of the total yearly catch. Catches were similar at each sampling location with the majority of alewife collected in July and May.

d) Lake trout was the principal salmonid collected. Lake trout numbers increased substantially from 1984 to 1986 with the largest catches occurring in October. Catches were generally highest at the east control although not significantly more than at the other sampling locations.

e) Rainbow smelt was the second most abundant species in the 1984 catch. The number of smelt declined to less than one smelt per net in 1987 and 1988.

f) Round whitefish catches increased from 1984 to 1986 but then declined through 1987 and 1988. The majority of fish were present in December, primarily west of the station and at the inshore end of the diffuser.

g) The variation in dominant fish species catch at the four sampling locations was not significant.

h) Bottom gill nets collected significantly more fish than surface nets.

5.0 ACKNOWLEDGEMENTS

Mr. Dave Lowther prepared the data and graphics for presentation in the report.

Approved by:

D.J.R. Dodd
Manager
Chemical Research Department

Prepared by:

R.W. Sheehan
Biologist
Biological Research Section

Reviewed by:

A.M. Sills
Section Head
Biological Research Section

REFERENCES

1. Ontario Hydro Research Division Report No. 87-82-K. Darlington NGS Preoperational Aquatic Study - 1984. J.S. Griffiths, March 1987.

2. Ontario Hydro Research Division Report No. 87-194-K. Pickering NGS B Postoperational Aquatic Study, 1986. J.K. Kwik.

3. Ontario Hydro Research Division Report No. 88-261-K. Pickering NGS B Postoperational Aquatic Study, 1987. J.K. Kwik.

4. Ontario Hydro Research Division Report No. 89-149-K. Pickering NGS B Postoperational Aquatic Study, 1988. J.K. Kwik.

5. Ontario Hydro Research Division Report No. 89-166-K. Darlington NGS Preoperational Aquatic Study, 1985. J.S. Griffiths.

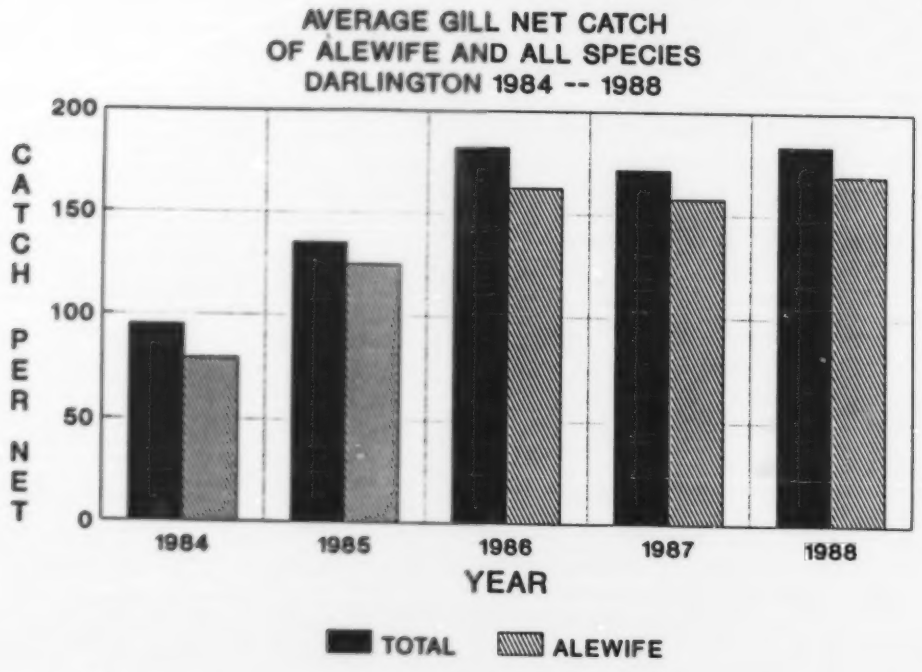


FIGURE 3.0-1

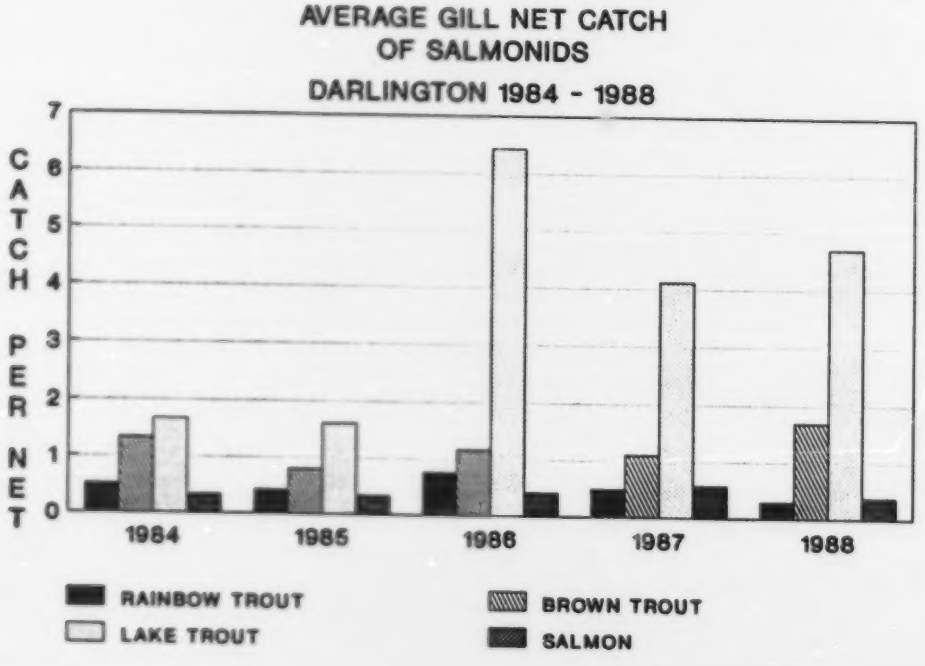


FIGURE 3.0-2

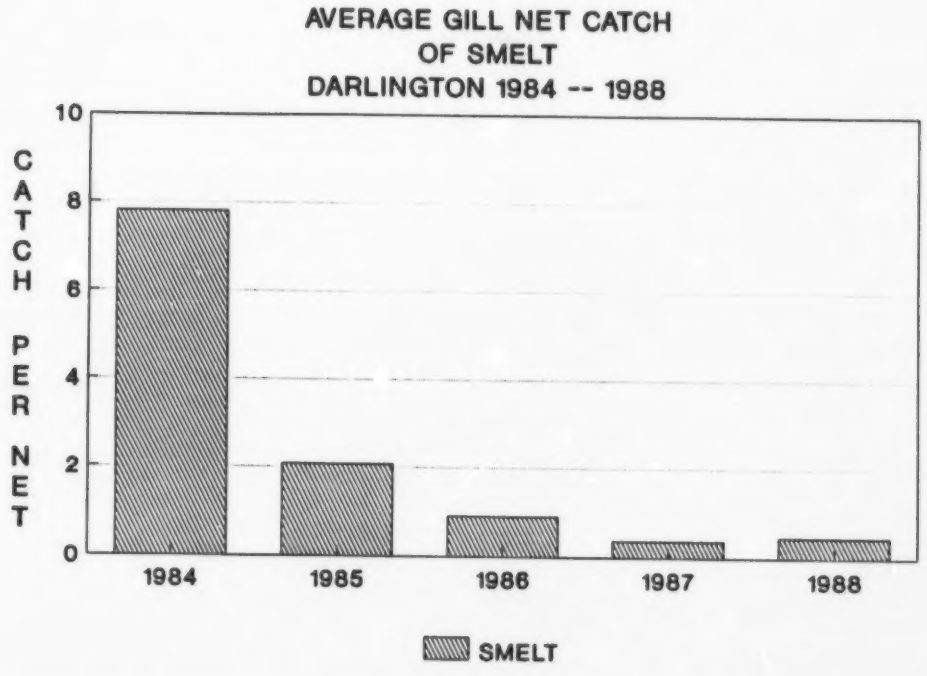
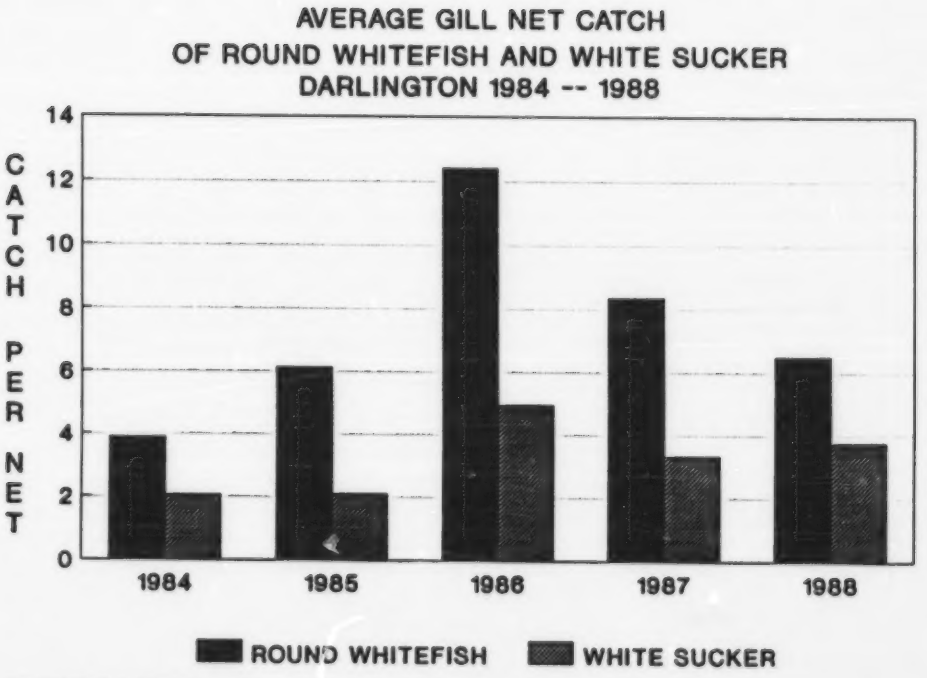
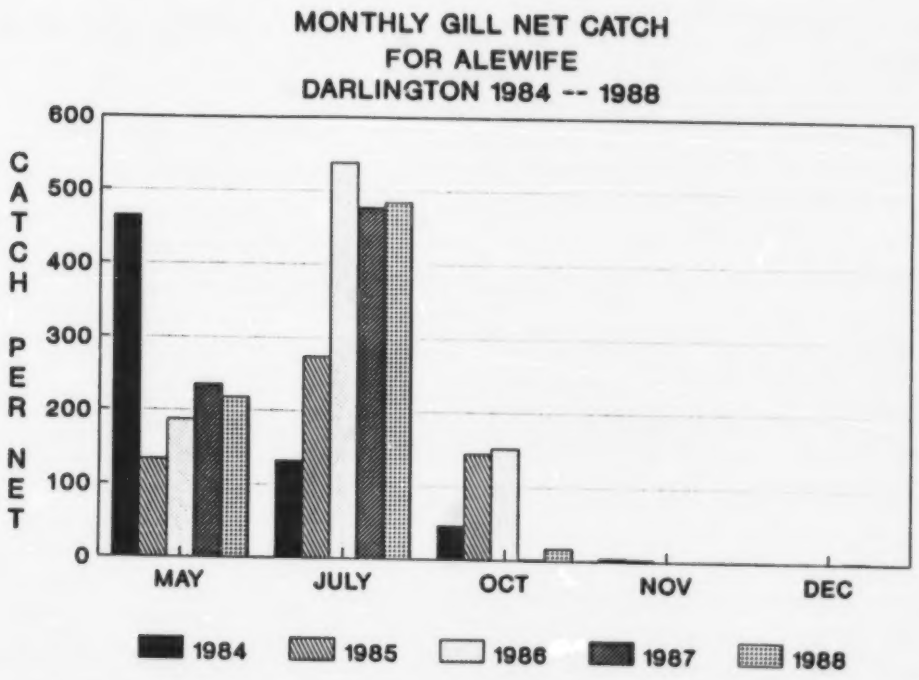


FIGURE 3.0-3



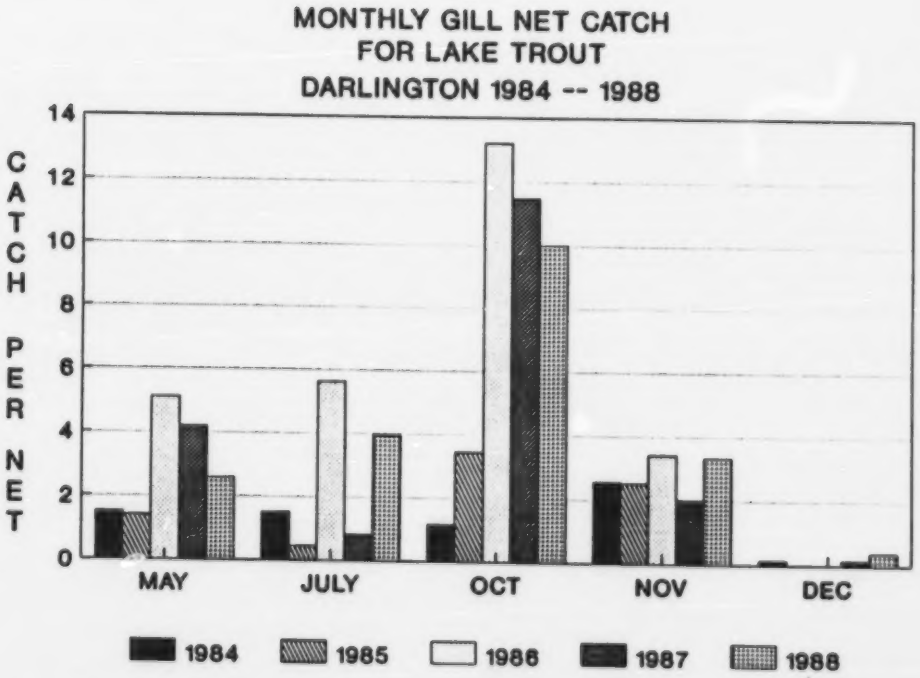
BOTTOM NETS

FIGURE 3.0-4



ALL LOCATIONS

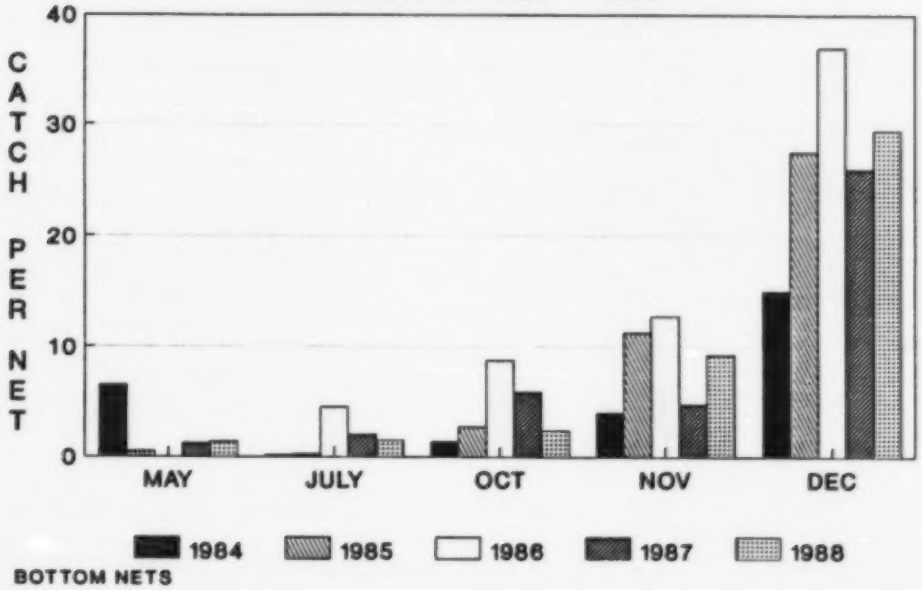
FIGURE 3.0-5



ALL LOCATIONS

FIGURE 3.0-6

MONTHLY GILL NET CATCH
IN BOTTOM NETS FOR ROUND WHITEFISH
DARLINGTON 1984 -- 1988



BOTTOM NETS
ALL LOCATIONS

FIGURE 3.0-7

AVERAGE GILL NET CATCH BY LOCATION
FOR ALEWIFE
DARLINGTON 1984 -- 1988

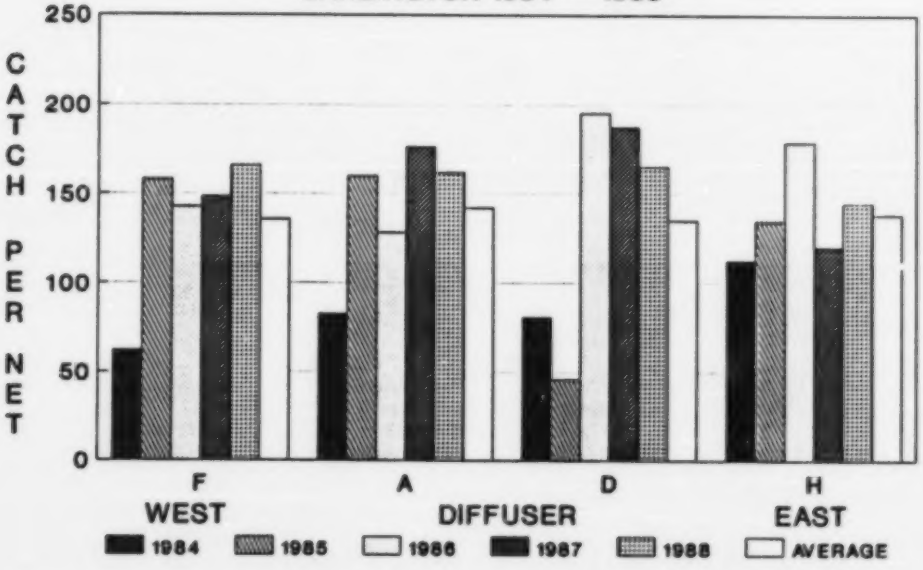


FIGURE 3.0-8

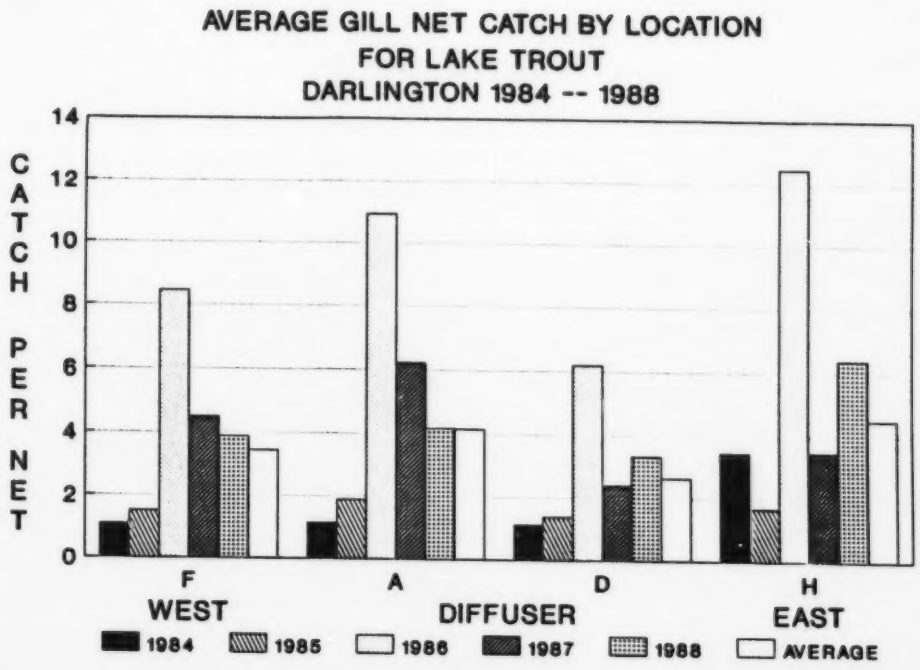
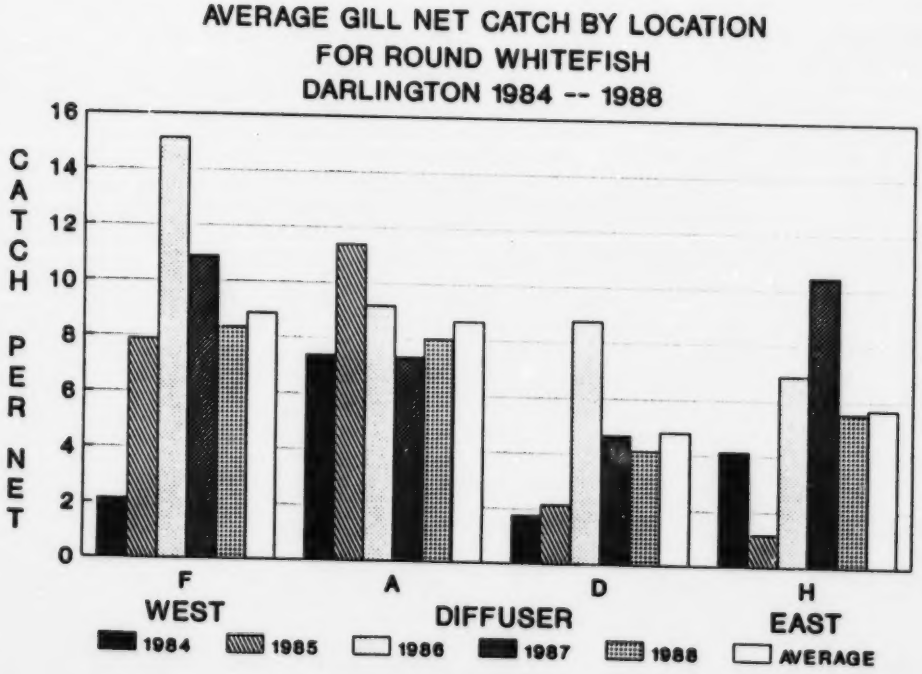


FIGURE 3.0-9



BOTTOM NETS

FIGURE 3.0-10

ANNUAL CATCH COMPARISON FOR ALEWIFE
DARLINGTON - PICKERING 1986 -- 1988

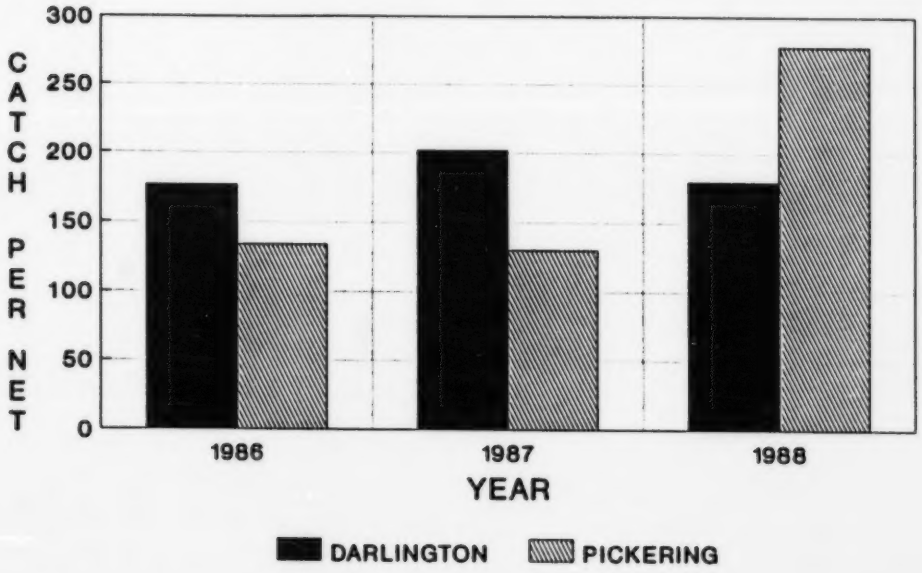


FIGURE 3.0-11

ANNUAL CATCH COMPARISON FOR LAKE TROUT
DARLINGTON - PICKERING 1986 -- 1988

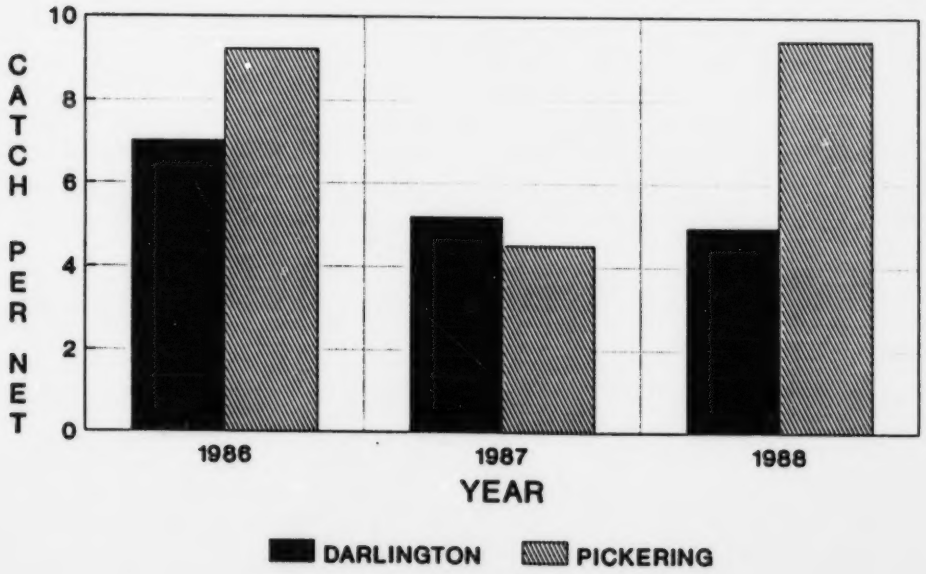


FIGURE 3.0-12

ANNUAL CATCH COMPARISON FOR ROUND WHITEFISH
DARLINGTON - PICKERING 1986 -- 1988

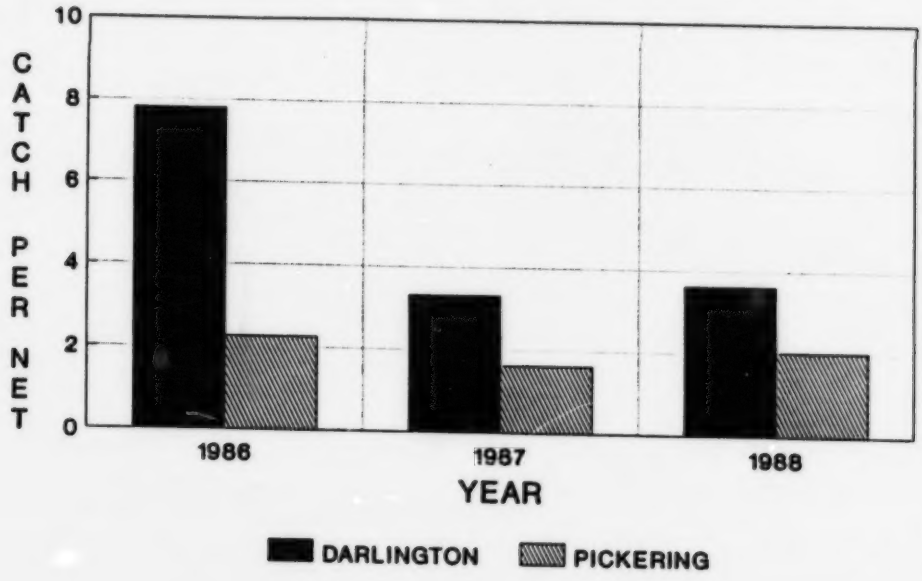


FIGURE 3.0-13

ANNUAL CATCH COMPARISON FOR BROWN TROUT
DARLINGTON - PICKERING 1986 -- 1988

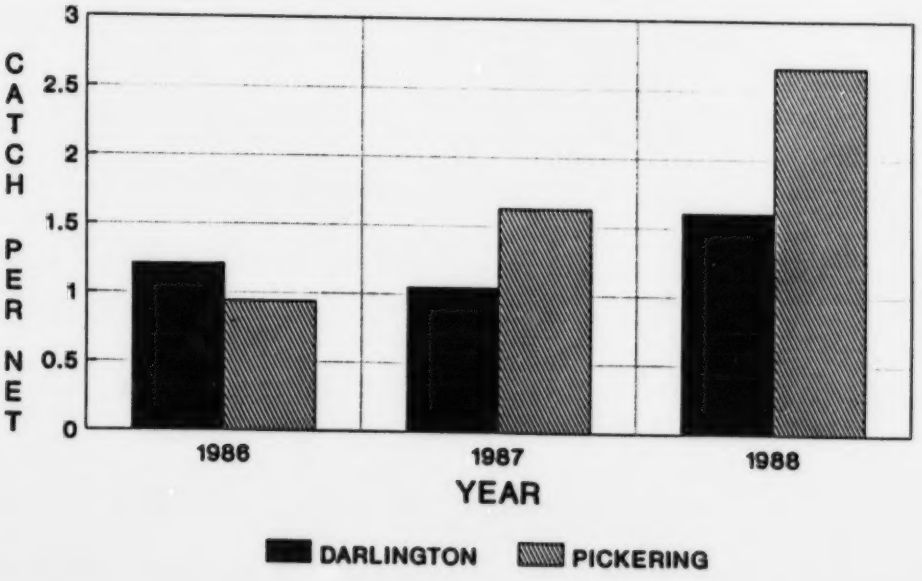


FIGURE 3.0-14

APPENDIX A

1986 - 1988 DARLINGTON GILL NET CATCH
(SITES A, D, F AND H)

DARLINGTON 1986 GILL NET CATCH

Date	Location																	
MAY 7(b)/8(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbotm	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	364	13	377	35	299	334	1	425	426	333	214	547	733	951	1684	183.25	237.75	210.5
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt	1		1		1	1		3	3		17	17	1	21	22	0.25	5.25	2.75
Round whitefish			0			0			0			0	0	0	0	0	0	0
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout		1	1		1	1	1	1	2	4	11	15	5	14	19	1.25	3.5	2.375
Brown trout			0		1	1			0			0	0	1	1	0	0.25	0.125
Rainbow trout		2	2	1		1			0			0	1	2	3	0.25	0.5	0.375
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker	5		5			0		1	1		3	3	5	4	9	1.25	1	1.125
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub	1		1		4	4			0			0	1	4	5	0.25	1	0.625
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0			0	1		1	1	0	1	0.25	0	0.125
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													747	997	1744			
													Surf	Botm	Total			

Date	Location																	
MAY 22(b)/21(s)	Site F (west)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET	
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	123	275	398	98	210	308	89	243	332	36	236	272	346	964	1310	86.5	241	163.75
Gizzard shad			0		1	1			0			0	0	1	1	0	0.25	0.125
Rainbow smelt	2		2			0			0	1		1	3	0	3	0.75	0	0.375
Round whitefish			0		1	1			0			0	0	1	1	0	0.25	0.125
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout	2	15	17		15	15		15	15		16	16	2	61	63	0.5	15.25	7.875
Brown trout			0	1		1			0			0	1	0	1	0.25	0	0.125
Rainbow trout	1		1	1		1			0			0	2	0	2	0.5	0	0.25
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon	1		1			0			0			0	1	0	1	0.25	0	0.125
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		1	1		5	5		3	3		2	2	0	11	11	0	2.75	1.375
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0		1	1			0			0	0	1	1	0	0.25	0.125
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch		1	1			0			0			0	0	1	1	0	0.25	0.125
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													355	1040	1395			
													Surf	Bota	Total			

Date	Location																	
JULY 30(b)/31(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbotm	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	217	285	502	127	574	701	203	1683	1886	172	1042	1214	719	3584	4303	179.75	896	537.875
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt	2	5	7	2	3	5		7	7		7	7	4	22	26	1	5.5	3.25
Round whitefish		6	6			0			0		12	12	0	18	18	0	4.5	2.25
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout	1	15	16		9	9		13	13		7	7	1	44	45	0.25	11	5.625
Brown trout			0	1	2	3		1	1			0	1	3	4	0.25	0.75	0.5
Rainbow trout			0	1		1			0			0	1	0	1	0.25	0	0.125
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon		1	1	2		2			0	1	2	3	3	3	6	0.75	0.75	0.75
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		3	3		2	2			0		3	3	0	8	8	0	2	1
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		1	1			0			0			0	0	1	1	0	0.25	0.125
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0		1	1	0	1	1	0	0.25	0.125
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike	1		1			0			0			0	1	0	1	0.25	0	0.125
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													730	3684	4414			
													Surf	Botm	Total			

Date	Location																	
OCT 9(b)/10(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbotm	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	24	684	708	21	709	730	1	276	277		586	586	46	2255	2301	11.5	563.75	287.625
Gizzard shad			0			0			0		1	1	0	1	1	0	0.25	0.125
Rainbow smelt			0		4	4			0			0	0	4	4	0	1	0.5
Round whitefish		11	11		26	26		3	3		22	22	0	62	62	0	15.5	7.75
Lake whitefish			0		0	0			0			0	0	0	0	0	0	0
Lake trout	9	10	19	36	22	58	14	11	25	20	20	40	79	63	142	19.75	15.75	17.75
Brown trout	3	2	5	8	2	10			0	4	4	8	15	8	23	3.75	2	2.875
Rainbow trout		2	2	1	1	2			0			0	1	3	4	0.25	0.75	0.5
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon	3		3	3		3	1		1			0	7	0	7	1.75	0	0.875
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		47	47		5	5		7	7		11	11	0	70	70	0	17.5	8.75
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		1	1		3	3			0		2	2	0	6	6	0	1.5	0.75
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass		1	1			0			0			0	0	1	1	0	0.25	0.125
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0		1	1			0			0	0	1	1	0	0.25	0.125
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													148	2474	2622			
													Surf	Botm	Total			

Date	Location																		
OCT 21(b)/22(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbote	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	12	102	114		2	2		2	2		1	1	12	107	119	3	26.75	14.875
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish		5	5		3	3			0			0	0	8	8	0	2	1
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout	4	12	16	16	6	22	6	1	7	17	7	24	43	26	69	10.75	6.5	8.625
Brown trout	3		3	2	4	6	1		1	2		2	8	4	12	2	1	1.5
Rainbow trout			0	2		2			0	1		1	3	0	3	0.75	0	0.375
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0	1		1			0	2		2	3	0	3	0.75	0	0.375
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		1	1		2	2		1	1		3	3	0	7	7	0	1.75	0.875
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		1	1		3	3			0			0	0	4	4	0	1	0.5
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass		1	1			0			0			0	0	1	1	0	0.25	0.125
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													69	157	226			
													Surf	Bote	Total			

Date / NOV 4(b)/4(s) / Species	Location: Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET		
	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	4	35	39	51	22	73	2	5	7	55	14	69	112	76	188	28	19	23.5	
Gizzard shad			0			0			0			0	0	0	0	0	0	0	
Rainbow smelt			0			0			0			0	0	0	0	0	0	0	
Round whitefish		7	7		2	2		3	3		14	14	0	26	26	0	6.5	3.25	
Lake whitefish			0			0			0			0	0	0	0	0	0	0	
Lake trout	2	19	21	4	9	13	4	2	6	7	1	8	17	31	48	4.25	7.75	6	
Brown trout	5		5	3	1	4	3		3	7		7	18	1	19	4.5	0.25	2.375	
Rainbow trout	1		1	15	1	16	2		2	5		5	23	1	24	5.75	0.25	3	
Atlantic salmon			0			0			0			0	0	0	0	0	0	0	
Chinook salmon	1		1			0			0			0	1	0	1	0.25	0	0.125	
Coho salmon			0			0			0	5		5	5	0	5	1.25	0	0.625	
Pink salmon			0			0			0			0	0	0	0	0	0	0	
White sucker	1	8	9		19	19		5	5		4	4	1	36	37	0.25	9	4.625	
Redhorse sucker			0			0			0			0	0	0	0	0	0	0	
Lake chub		1	1		3	3			0			0	0	4	4	0	1	0.5	
Rock bass			0			0			0			0	0	0	0	0	0	0	
Smallmouth bass			0			0			0			0	0	0	0	0	0	0	
Largemouth bass			0			0			0			0	0	0	0	0	0	0	
White perch			0		2	2			0		1	1	0	3	3	0	0.75	0.375	
White bass			0			0			0			0	0	0	0	0	0	0	
Yellow perch			0		1	1			0		3	3	0	4	4	0	1	0.5	
Walleye			0			0			0			0	0	0	0	0	0	0	
Freshwater drum			0			0			0			0	0	0	0	0	0	0	
Bar pike			0			0			0			0	0	0	0	0	0	0	
Northern Pike			0			0			0			0	0	0	0	0	0	0	
Brown bullhead			0			0			0			0	0	0	0	0	0	0	
Channel cat			0			0			0			0	0	0	0	0	0	0	
													177	182	359				
													Surf	Bota	Total				

Date	Location																		
NOV 28(s)/27(b)	Site F (West)			Site A Inshore Diffuser			Site B Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife			0			0			0			0	0	0	0	0	0	0
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish		10	10	77	10	87		5	5		3	3	77	26	103	19.25	7	13.125
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout		3	3			0			0		3	3	0	6	6	0	1.5	0.75
Brown trout	1	2	3	1	1	2			0	1	2	3	3	5	8	0.75	1.25	1
Rainbow trout	2		2	5		5	1		1	4		4	12	0	12	3	0	1.5
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0	2		2			0			0	2	0	2	0.5	0	0.25
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		2	2		3	3		3	3		3	3	0	11	11	0	2.75	1.375
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0			0			0			0	0	0	0	0	0	0
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch		1	1			0			0		1	1	0	2	2	0	0.5	0.25
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0		1	1			0			0	0	1	1	0	0.25	0.125
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
Slimy sculpin		1	1			0			0			0	0	1	1	0	0.25	0.125
													94	54	148			
													Surf	Bota	Total			

Date	Location																	
DEC 11(b)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET	
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbote	Tsession	SURFACE	BOTTOM	TOTAL
Alewife			0			0			0			0	0	0	0	0	0	0
Gizzard shad		1	1			0			0			0	0	1	1	0	0.25	0.25
Rainbow saelt			0			0			0			0	0	0	0	0	0	0
Round whitefish		82	82			0		62	62		4	4	0	148	148	0	37	37
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout			0			0			0			0	0	0	0	0	0	0
Brown trout		2	2			0		1	1			0	0	3	3	0	0.75	0.75
Rainbow trout			0			0			0			0	0	0	0	0	0	0
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		3	3		1	1		3	3		1	1	0	8	8	0	2	2
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		1	1		4	4			0		1	1	0	6	6	0	1.5	1.5
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													0	166	166			
													Surf	Bote	Total			

Date	Location												TOTALS				CATCH/NET		
DEC 15(b)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)									
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbote	Tsession	SURFACE	BOTTOM	TOTAL	
Alewife			0			0			0			0	0	0	0	0	0	0	
Gizzard shad			0			0			0			0	0	0	0	0	0	0	
Rainbow smelt			0			0			0			0	0	0	0	0	0	0	
Round whitefish			0		41	41			0			0	0	41	41	0	41	41	
Lake whitefish			0			0			0			0	0	0	0	0	0	0	
Lake trout			0			0			0			0	0	0	0	0	0	0	
Brown trout			0			0			0			0	0	0	0	0	0	0	
Rainbow trout			0			0			0			0	0	0	0	0	0	0	
Atlantic salmon			0			0			0			0	0	0	0	0	0	0	
Chinook salmon			0			0			0			0	0	0	0	0	0	0	
Coho salmon			0			0			0			0	0	0	0	0	0	0	
Pink salmon			0			0			0			0	0	0	0	0	0	0	
White sucker			0		2	2			0			0	0	2	2	0	2	2	
Redhorse sucker			0			0			0			0	0	0	0	0	0	0	
Lake chub			0			0			0			0	0	0	0	0	0	0	
Rock bass			0			0			0			0	0	0	0	0	0	0	
Smallmouth bass			0			0			0			0	0	0	0	0	0	0	
Largemouth bass			0			0			0			0	0	0	0	0	0	0	
White perch			0			0			0			0	0	0	0	0	0	0	
White bass			0			0			0			0	0	0	0	0	0	0	
Yellow perch			0			0			0			0	0	0	0	0	0	0	
Walleye			0			0			0			0	0	0	0	0	0	0	
Freshwater drum			0			0			0			0	0	0	0	0	0	0	
Gar pike			0			0			0			0	0	0	0	0	0	0	
Northern Pike			0			0			0			0	0	0	0	0	0	0	
Brown bullhead			0			0			0			0	0	0	0	0	0	0	
Channel cat			0			0			0			0	0	0	0	0	0	0	
													0	43	43				
													Surf	Bote	Total				

DARLINGTON 1987 GILL NET CATCH

Date	Location																	
MAY 22(b)/22(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbots	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	394	196	590	39	223	262	18	207	225	59	371	430	510	997	1507	127.5	249.25	186.375
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt	1	3	4		1	1		5	5		3	3	1	12	13	0.25	3	1.625
Round whitefish			0		1	1			0		2	2	0	3	3	0	0.75	0.375
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout	1	2	3	4	3	7	1	14	15	1	15	16	7	34	41	1.75	8.5	5.125
Brown trout			0			0			0			0	0	0	0	0	0	0
Rainbow trout			0			0			0			0	0	0	0	0	0	0
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		2	2		3	3		3	3		6	6	0	14	14	0	3.5	1.75
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		1	1		1	1			0			0	0	2	2	0	0.5	0.25
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0		1	1	0	1	1	0	0.25	0.125
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch		2	2			0			0			0	0	2	2	0	0.5	0.25
White bass			0			0			0	1		1	1	0	1	0.25	0	0.125
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													519	1065	1584			
													Surf	Bots	Total			

Date	Location																	
MAY 29(b)/28(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbote	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	271	344	615	237	264	501	192	272	464	389	277	666	1089	1157	2246	272.25	289.25	280.75
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt	1	5	6	1		1	1		1	1	2	3	4	7	11	1	1.75	1.375
Round whitefish			0		2	2			0		5	5	0	7	7	0	1.75	0.875
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout	2	5	7		7	7	1	7	8	2	2	4	5	21	26	1.25	5.25	3.25
Brown trout			0			0			0			0	0	0	0	0	0	0
Rainbow trout			0			0			0			0	0	0	0	0	0	0
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		2	2		3	3		2	2		6	6	0	13	13	0	3.25	1.625
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		2	2		2	2			0		1	1	0	5	5	0	1.25	0.625
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0		1	1			0			0	0	1	1	0	0.25	0.125
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch	2		2		2	2		1	1	6	2	8	8	5	13	2	1.25	1.625
White bass		1	1			0			0	2		2	2	1	3	0.5	0.25	0.375
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													1108	1217	2325			

Date	Location																	
JULY 8(b)/9(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			Surf TOTALS	Bota	Total	CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	166	250	416	69	433	502	109	804	913	123	291	414	467	1778	2245	116.75	444.5	280.625
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0		2	2			0	0	2	2	0	0.5	0.25
Round whitefish		2	2		1	1		2	2		2	2	0	7	7	0	1.75	0.875
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout			0		2	2			0		1	1	0	3	3	0	0.75	0.375
Brown trout		6	6		2	2			0	1		1	1	8	9	0.25	2	1.125
Rainbow trout			0			0			0		2	2	0	2	2	0	0.5	0.25
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon		1	1			0			0		1	1	0	2	2	0	0.5	0.25
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		1	1		1	1			0		2	2	0	4	4	0	1	0.5
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0		2	2			0			0	0	2	2	0	0.5	0.25
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead		2	2			0			0			0	0	2	2	0	0.5	0.25
Channel cat			0			0			0			0	0	0	0	0	0	0
													468	1810	2278			
													Surf	Bota	Total			

Date	Location																	
JULY 21(b)/22(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	292	758	1050	359	1549	1908	224	1546	1770	391	287	678	1266	4140	5406	316.5	1035	675.75
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0			0	1		1	1	0	1	0.25	0	0.125
Round whitefish		2	2			0		4	4		3	3	0	9	9	0	2.25	1.125
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout		2	2		2	2		3	3		3	3	0	10	10	0	2.5	1.25
Brown trout			0	1		1	1		1			0	2	0	2	0.5	0	0.25
Rainbow trout			0	1		1			0			0	1	0	1	0.25	0	0.125
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0		1	1		1	1	0	2	2	0	0.5	0.25
Coho salmon			0			0		1	1	1		1	1	1	2	0.25	0.25	0.25
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		4	4			0			0	1	2	3	1	6	7	0.25	1.5	0.875
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0			0			0		1	1	0	1	1	0	0.25	0.125
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead	1		1			0	1		1			0	2	0	2	0.5	0	0.25
Channel cat			0			0			0			0	0	0	0	0	0	0
													1274	4169	5443			
													Surf	Bota	Total			

Date	Location																		
OCT 14(s)/15(b)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbots	Tsession	SURFACE	BOTTOM	TOTAL
Alewife			0	1		1	1	1	2	1		1	3	1	4	0.75	0.25	0.5
Gizzard shad	1	1	2			0			0			0	1	1	2	0.25	0.25	0.25
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish		4	4		6	6			0			0	0	10	10	0	2.5	1.25
Lake whitefish			0			0	4	2	6			0	4	2	6	1	0.5	0.75
Lake trout	12	16	28	12	29	41		1	1	3		3	27	46	73	6.75	11.5	9.125
Brown trout	1		1	2	3	5			0	1		1	4	3	7	1	0.75	0.875
Rainbow trout			0			0			0			0	0	0	0	0	0	0
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon	1		1	10		10	2	7	9	2		2	15	7	22	3.75	1.75	2.75
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		5	5		9	9			0			0	0	14	14	0	3.5	1.75
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		1	1		3	3			0			0	0	4	4	0	1	0.5
Rock bass		1	1		1	1			0			0	0	2	2	0	0.5	0.25
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													54	90	144			
													Surf	Bots	Total			

Date	Location																		
OCT 15(s)/16(b)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife			0			0			0	4	76	80	4	76	80	4	76	40
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish			0			0			0			0	0	0	0	0	0	0
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout			0			0			0	7	2	9	7	2	9	7	2	4.5
Brown trout			0			0			0			0	0	0	0	0	0	0
Rainbow trout			0			0			0			0	0	0	0	0	0	0
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0	2		2	2	0	2	2	0	1
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker			0			0			0	2		2	2	0	2	2	0	1
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0			0			0			0	0	0	0	0	0	0
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													15	78	93			
													Surf	Bota	Total			

Date	Location																		
OCT 27(s)/28(b)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession		SURFACE	BOTTOM	TOTAL
Alewife	3	1	4	4	1	5			0	7	4	11	14	6	20		3.5	1.5	2.5
Gizzard shad	1		1	3		3			0	14		14	18	0	18		4.5	0	2.25
Rainbow smelt			0			0			0			0	0	0	0		0	0	0
Round whitefish		14	14		6	6		15	15		2	2	0	37	37		0	9.25	4.625
Lake whitefish			0			0			0			0	0	0	0		0	0	0
Lake trout	10	16	26	8	33	41		13	13	5	22	27	23	84	107		5.75	21	13.375
Brown trout	5		5	4	2	6	4		4	3	1	4	16	3	19		4	0.75	2.375
Rainbow trout			0	1		1			0	8		8	9	0	9		2.25	0	1.125
Atlantic salmon			0			0			0			0	0	0	0		0	0	0
Chinook salmon			0			0			0			0	0	0	0		0	0	0
Coho salmon	2		2			0			0	2		2	4	0	4		1	0	0.5
Pink salmon			0			0			0			0	0	0	0		0	0	0
White sucker		8	8		3	3		6	6		5	5	0	22	22		0	5.5	2.75
Redhorse sucker			0		1	1			0			0	0	1	1		0	0.25	0.125
Lake chub		6	6		3	3		1	1			0	0	10	10		0	2.5	1.25
Rock bass			0			0			0			0	0	0	0		0	0	0
Smallmouth bass			0			0			0			0	0	0	0		0	0	0
Largemouth bass			0			0			0			0	0	0	0		0	0	0
White perch		3	3		1	1			0			0	0	4	4		0	1	0.5
White bass		3	3		1	1		1	1			0	0	5	5		0	1.25	0.625
Yellow perch			0			0			0			0	0	0	0		0	0	0
Walleye			0		1	1			0			0	0	1	1		0	0.25	0.125
Freshwater drum			0			0			0			0	0	0	0		0	0	0
Gar pike			0			0			0			0	0	0	0		0	0	0
Northern Pike			0			0			0			0	0	0	0		0	0	0
Brown bullhead			0			0			0			0	0	0	0		0	0	0
Channel cat			0			0			0			0	0	0	0		0	0	0
													84	173	257				
													Surf	Bota	Total				

Date	Location																		
NOV 11(b)/10(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbote	Tsession		SURFACE	BOTTOM	TOTAL
Alewife			0			0			0			0	0	0	0		0	0	0
Gizzard shad			0			0			0			0	0	0	0		0	0	0
Rainbow smelt			0			0			0			0	0	0	0		0	0	0
Round whitefish		6	6		7	7			0		6	6	0	19	19		0	4.75	2.375
Lake whitefish			0			0			0			0	0	0	0		0	0	0
Lake trout	1	13	14	1	10	11		2	2		2	2	2	27	29		0.5	6.75	3.625
Brown trout	6		6	12	2	14	1		1	3		3	22	2	24		5.5	0.5	3
Rainbow trout	1		1			0			0			0	1	0	1		0.25	0	0.125
Atlantic salmon			0			0			0			0	0	0	0		0	0	0
Chinook salmon			0			0			0			0	0	0	0		0	0	0
Coho salmon	4		4	3		3	1		1			0	8	0	8		2	0	1
Pink salmon			0			0			0			0	0	0	0		0	0	0
White sucker		2	2		2	2			0		25	25	0	29	29		0	7.25	3.625
Redhorse sucker			0			0			0			0	0	0	0		0	0	0
Lake chub			0			0			0			0	0	0	0		0	0	0
Rock bass			0			0			0			0	0	0	0		0	0	0
Smallmouth bass			0			0			0			0	0	0	0		0	0	0
Largemouth bass			0			0			0			0	0	0	0		0	0	0
White perch			0			0			0		1	1	0	1	1		0	0.25	0.125
White bass			0			0			0			0	0	0	0		0	0	0
Yellow perch			0		1	1			0			0	0	1	1		0	0.25	0.125
Walleye			0		1	1			0			0	0	1	1		0	0.25	0.125
Freshwater drum			0			0			0			0	0	0	0		0	0	0
Gar pike			0			0			0			0	0	0	0		0	0	0
Northern Pike			0			0			0			0	0	0	0		0	0	0
Brown bullhead			0			0			0			0	0	0	0		0	0	0
Channel cat			0			0			0			0	0	0	0		0	0	0
													33	80	113				
													Surf	Bote	Total				

Date	Location																		
DEC 2(b)/3(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbote	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	1		1			0			0			0	1	0	1	0.25	0	0.125
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish			0		43	43	1		1		41	41	1	84	85	0.25	21	10.625
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout		1	1		1	1		1	1			0	0	3	3	0	0.75	0.375
Brown trout	4		4		1	1	1		1	3		3	8	1	9	2	0.25	1.125
Rainbow trout	3		3			0			0	5		5	8	0	8	2	0	1
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker			0		1	1	1		1		2	2	1	3	4	0.25	0.75	0.5
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0		2	2			0			0	0	2	2	0	0.5	0.25
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch		1	1			0			0		1	1	0	2	2	0	0.5	0.25
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0		1	1			0		1	1	0	2	2	0	0.5	0.25
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
Sculpin			0			0			0		1	1	0	1	1	0	0.25	0.125
													19	98	117			
													Surf	Bote	Total			

Date	Location																		
DEC 16(s)/17(b)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbotm	Tsession	SURFACE	BOTTOM	TOTAL
Alewife			0			0			0		1	1	0	1	1	0	0.25	0.125
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish		70	70			0		21	21		33	33	0	124	124	0	31	15.5
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout			0			0			0		1	1	0	1	1	0	0.25	0.125
Brown trout	2		2	5	1	6	2		2			0	9	1	10	2.25	0.25	1.25
Rainbow trout	3		3	8	1	9	1		1	2		2	14	1	15	3.5	0.25	1.875
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		1	1		1	1		3	3		5	5	0	10	10	0	2.5	1.25
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0		2	2		1	1			0	0	3	3	0	0.75	0.375
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch		2	2			0			0			0	0	2	2	0	0.5	0.25
White bass		1	1			0			0		1	1	0	2	2	0	0.5	0.25
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													23	145	168			
													Surf	Botm	Total			

DARLINGTON 1988 GILL NET CATCH

Date	Location																	
MAY 11(b)/12(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	137	181	318	201	438	639	94	273	367	145	297	442	577	1189	1766	144.25	297.25	220.75
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt		3	3		3	3			0		2	2	0	8	8	0	2	1
Round whitefish		2	2			0		3	3			0	0	5	5	0	1.25	0.625
Lake whitefish			0		1	1			0			0	0	1	1	0	0.25	0.125
Lake trout		3	3		1	1		4	4		9	9	0	17	17	0	4.25	2.125
Brown trout			0			0			0	1	1	2	1	1	2	0.25	0.25	0.25
Rainbow trout			0			0			0			0	0	0	0	0	0	0
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon	1		1			0			0	1		1	2	0	2	0.5	0	0.25
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker			0		2	2		4	4		6	6	0	12	12	0	3	1.5
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		3	3		6	6			0			0	0	9	9	0	2.25	1.125
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch		1	1		1	1			0			0	0	2	2	0	0.5	0.25
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													580	1244	1824			
													Surf	Bota	Total			

DARLINGTON 1988 GILL NET CATCH

Date	Location																	
MAY 25(b)/26(s)	Site F (West)			Site A Inshore Diffuser			Site B Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbots	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	39	390	429	68	428	496	43	215	258	14	523	537	164	1556	1720	41	389	215
Gizzard shad			0			0		1	1		1	1	0	2	2	0	0.5	0.25
Rainbow smelt	2	2	4			0		1	1		3	3	2	6	8	0.5	1.5	1
Round whitefish			0		1	1			0		5	5	0	6	6	0	1.5	0.75
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout		1	1		4	4		3	3	2	14	16	2	22	24	0.5	5.5	3
Brown trout		1	1			0			0			0	0	1	1	0	0.25	0.125
Rainbow trout			0			0			0			0	0	0	0	0	0	0
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0	1		1			0			0	1	0	1	0.25	0	0.125
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		1	1		3	3		2	2		4	4	0	10	10	0	2.5	1.25
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0		5	5			0			0	0	5	5	0	1.25	0.625
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch		1	1			0		1	1		3	3	0	5	5	0	1.25	0.625
White bass			0			0			0		4	4	0	4	4	0	1	0.5
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Bar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													169	1617	1786			

Date	Location												Surf	Bota	Total			
JULY 5(b)/6(s)	Site F (west)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	498	237	735	552	443	995	403	1092	1495	482	555	1037	1935	2327	4262	483.75	581.75	532.75
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt		2	2			0			0			0	0	2	2	0	0.5	0.25
Round whitefish		2	2		4	4		2	2			0	0	8	8	0	2	1
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout		8	8	1	4	5		6	6	2	15	17	7	33	38	0.75	8.25	4.5
Brown trout	1		1	1		1			0			0	2	0	2	0.5	0	0.25
Rainbow trout			0			0	1		1			0	1	0	1	0.25	0	0.125
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		11	11		7	7		1	1		14	14	0	33	33	0	8.25	4.125
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0			0			0			0	0	0	0	0	0	0
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0		1	1	0	1	1	0	0.25	0.125
White bass			0			0			0		1	1	0	1	1	0	0.25	0.125
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0

Date	Location																	
JULY 19(b)/20(s)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS			CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	859	578	1437	390	254	644	143	704	847	207	357	564	1599	1893	3492	399.75	473.25	436.5
Gizzard shad			0			0			0	1		1	1	0	1	0.25	0	0.125
Rainbow smelt	2	1	3	3	1	4	1		1	2	2	4	8	4	12	2	1	1.5
Round whitefish		2	2			0			0		2	2	0	4	4	0	1	0.5
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout		3	3		7	7		6	6		11	11	0	27	27	0	6.75	3.375
Brown trout			0	2		2	1		1	2	1	3	5	1	6	1.25	0.25	0.75
Rainbow trout	1		1	1		1	2		2			0	4	0	4	1	0	0.5
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon	1		1	3		3			0		1	1	4	1	5	1	0.25	0.625
Coho salmon	1		1			0			0	1		1	2	0	2	0.5	0	0.25
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		3	3		3	3		1	1		2	2	0	9	9	0	2.25	1.125
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0		5	5			0		2	2	0	7	7	0	1.75	0.875
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													1623 Surf	1946 Bota	3569 Total			

Date	Location												TOTALS			CATCH/NET		
OCT4(s)/5(b)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)								
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbotm	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	1	10	11	82	31	113	7	0	7	21	0	21	111	41	152	27.75	10.25	19
Gizzard shad		3	3		7	7			0		1	1	0	11	11	0	2.75	1.375
Rainbow smelt			0			0			0		1	1	0	1	1	0	0.25	0.125
Round whitefish		1	1		1	1		3	3			0	0	5	5	0	1.25	0.625
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout	15	4	19	1	9	10	1	5	6		1	1	17	19	36	4.25	4.75	4.5
Brown trout	1		1	4	2	6	4		4	4	1	5	13	3	16	3.25	0.75	2
Rainbow trout			0			0			0			0	0	0	0	0	0	0
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon	1		1	1	1	2			0		1	1	2	2	4	0.5	0.5	0.5
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		1	1			0		1	1			0	0	2	2	0	0.5	0.25
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		1	1		1	1			0		2	2	0	4	4	0	1	0.5
Rock bass			0		1	1			0		1	1	0	2	2	0	0.5	0.25
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch		4	4		2	2			0		2	2	0	8	8	0	2	1
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0		1	1			0			0	0	1	1	0	0.25	0.125
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Bar pike			0			0	1		1			0	1	0	1	0.25	0	0.125
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead		3	3		2	2			0			0	0	5	5	0	1.25	0.625
Channel cat			0			0			0			0	0	0	0	0	0	0
													144	104	248			
													Surf	Bots	Total			

Date	Location												TOTALS			CATCH/NET		
OCT 18(s)/19(b)	Site F (West)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)								
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbote	Tsession	SURFACE	BOTTOM	TOTAL
Alewife	54	3	57	33	2	35	1	3	4	2	2	4	90	10	100	22.5	2.5	12.5
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish		2	2		3	3		5	5		4	4	0	14	14	0	3.5	1.75
Lake whitefish			0			0			0		1	1	0	1	1	0	0.25	0.125
Lake trout	3	14	17	23	13	36	4	13	17	17	37	54	47	77	124	11.75	19.25	15.5
Brown trout	9	1	10	5	3	8	6	1	7	8	1	9	28	6	34	7	1.5	4.25
Rainbow trout			0	1		1	1		1	1		1	3	0	3	0.75	0	0.375
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0	5		5	3		3	8	0	8	2	0	1
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		8	8		6	6		1	1		9	9	0	24	24	0	6	3
Redhorse sucker			0			0			0		1	1	0	1	1	0	0.25	0.125
Lake chub		3	3	1	1	2			0			0	1	4	5	0.25	1	0.625
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0		1	1			0		1	1	0	2	2	0	0.5	0.25
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0			0			0			0	0	0	0	0	0	0
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0		1	1			0			0	0	1	1	0	0.25	0.125
Bar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead		1	1			0			0		1	1	0	2	2	0	0.5	0.25
Channel cat			0			0			0			0	0	0	0	0	0	0
													177	142	319			
													Surf	Bote	Total			

Date	Location																	
NOV 2(b)/3(s)	Site F (west)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)			TOTALS				CATCH/NET	
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbotm	Tsession	SURFACE	BOTTOM	TOTAL
Alewife			0			0			0		1	1	0	1	1	0	0.25	0.125
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish		1	1		10	10		1	1		2	2	0	14	14	0	3.5	1.75
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout		16	16	1	11	12		17	17	1	5	6	2	49	51	0.5	12.25	6.375
Brown trout	8	2	10	9	4	13	1		1	8		8	26	6	32	6.5	1.5	4
Rainbow trout	1		1	4		4	1		1	4		4	10	0	10	2.5	0	1.25
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon	1		1			0	1		1			0	2	0	2	0.5	0	0.25
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker			0		3	3		1	1			0	0	4	4	0	1	0.5
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0		1	1			0			0	0	1	1	0	0.25	0.125
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0		1	1			0			0	0	1	1	0	0.25	0.125
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead		1	1			0			0			0	0	1	1	0	0.25	0.125
Channel cat			0			0			0			0	0	0	0	0	0	0
													40	77	117			
													Surf	Botm	Total			

Date	Location												TOTALS				CATCH/NET		
NOV 18(b)/24(s)	Site F (west)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)									
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbotm	Tsession	SURFACE	BOTTOM	TOTAL
Alewife			0			0			0			0	0	0	0	0	0	0
Gizzard shad			0		1	1			0			0	0	1	1	0	0.25	0.125
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish		20	20		14	14		20	20		6	6	0	60	60	0	15	7.5
Lake whitefish		1	1			0			0			0	0	1	1	0	0.25	0.125
Lake trout	1		1			0			0	1		1	2	0	2	0.5	0	0.25
Brown trout	2	1	3	2		2	2		2	3		3	9	1	10	2.25	0.25	1.25
Rainbow trout	1		1			0			0			0	1	0	1	0.25	0	0.125
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0	1		1	1	0	1	0.25	0	0.125
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		5	5		3	3		9	9		6	6	0	23	23	0	5.75	2.875
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub		2	2		8	8			0		1	1	0	11	11	0	2.75	1.375
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0			0			0	0	0	0	0	0	0
Yellow perch			0		2	2			0			0	0	2	2	0	0.5	0.25
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													13	99	112			
													Surf	Botm	Total			

Date	Location																	
DEC 16(b)	Site F (west)			Site A Inshore Diffuser			Site D Offshore Diffuser			Site H (East)		TOTALS				CATCH/NET		
Species	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Surface	Bottom	Total	Tsurf	Tbota	Tsession	SURFACE	BOTTOM	TOTAL
Alewife			0			0			0			0	0	0	0	0	0	0
Gizzard shad			0			0			0			0	0	0	0	0	0	0
Rainbow smelt			0			0			0			0	0	0	0	0	0	0
Round whitefish		45	45		39	39		3	3		31	31	0	118	118	0	29.5	29.5
Lake whitefish			0			0			0			0	0	0	0	0	0	0
Lake trout		2	2			0		1	1			0	0	3	3	0	0.75	0.75
Brown trout		3	3		1	1		3	3		5	5	0	12	12	0	3	3
Rainbow trout			0			0			0		1	1	0	1	1	0	0.25	0.25
Atlantic salmon			0			0			0			0	0	0	0	0	0	0
Chinook salmon			0			0			0			0	0	0	0	0	0	0
Coho salmon			0			0			0			0	0	0	0	0	0	0
Pink salmon			0			0			0			0	0	0	0	0	0	0
White sucker		4	4			0		6	6		8	8	0	18	18	0	4.5	4.5
Redhorse sucker			0			0			0			0	0	0	0	0	0	0
Lake chub			0			0			0		1	1	0	1	1	0	0.25	0.25
Rock bass			0			0			0			0	0	0	0	0	0	0
Smallmouth bass			0			0			0			0	0	0	0	0	0	0
Largemouth bass			0			0			0			0	0	0	0	0	0	0
White perch			0			0			0			0	0	0	0	0	0	0
White bass			0			0		1	1			0	0	1	1	0	0.25	0.25
Yellow perch			0		1	1			0		1	1	0	2	2	0	0.5	0.5
Walleye			0			0			0			0	0	0	0	0	0	0
Freshwater drum			0			0			0			0	0	0	0	0	0	0
Gar pike			0			0			0			0	0	0	0	0	0	0
Northern Pike			0			0			0			0	0	0	0	0	0	0
Brown bullhead			0			0			0			0	0	0	0	0	0	0
Channel cat			0			0			0			0	0	0	0	0	0	0
													0	156	156			
													Surf	Bota	Total			

APPENDIX B

1986 - 1988 DARLINGTON GILL NET WATER TEMPERATURES

DARLINGTON SURFACE (S) AND BOTTOM (B) WATER TEMPERATURES AT GILL NET LOCATIONS

DATE: 1986		A		D		F		H	
NET:SET/LIFT		IN	OFF	IN	OFF	IN	OFF	IN	OFF
MAY 21	S	9.7	9.4	9	9	9.7	9.7	9	9
SUR	B	9	9.1	8.8	8.9	9.4	9.2	8.3	8.4
MAY 22	S	9.7	9.6	9.3	9.6	10.4	10.1	9.6	9.5
BTM	B	9.3	9.3	9	9.2	9.2	9	9.1	9
JUNE 30	S	6.6	6.6	6.6	6.7	6.9	6.9	6.8	6.9
BTM	B	5.8	5.8	5.5	5.5	6.2	6.2	5.7	5.6
JULY 1	S	7.6	7.1	8.9	8.8	7.8	7.6	6.9	6.8
SUR/BTM	B	6.5	6.1	5.6	5.7	5.8	6	5.7	5.7
JULY 2	S	9.6	9.1	10	11.2	10	10.1	9.3	9.3
SUR	B	7.7	7.3	6.1	5.9	7.3	7.1	6.6	6.6
JULY 29	S	20.9	21	22	21.2	22.4	21.3	22.5	22.5
BTM	B	17.3	17.3	17.8	16.4	18.8	16.3	18.5	17.1
JULY 30	S	16.8	17.1	17.6	17.5	17.4	17.1	18.1	18.5
SUR/BTM	B	14.3	14.6	14.6	14.1	15.8	15.3	16.5	15.4
JULY 31	S	23	23	22	22.5	22.1	22.5	22.9	23
BTM	B	16.6	17	13.8	13.7	16.5	16.8	21.3	21.5
OCT 7	S	8.6	6.5	6.5	5.5	7.6	6	7.6	5.8
BTM	B	8.6	6	6.2	5.6	6.9	5.8	7.4	5.7
OCT 9	S	7.4	7	6.2	6.2	7.4	7.2	5.9	5.9
SUR/BTM	B	7.4	6.9	6.1	6.1	7.4	6.9	6	6
OCT 10	S	6.2	6.1	5.8	5.9	6.2	6.2	5.6	5.6
SUR									
OCT 20	S	8.1	8	7.7	7	8	7.8	7.5	7.6
BTM	B	7.1	7.1	7.2	7.7	7.1	7	7.2	7.1
OCT 21	S	7.5	7.5	7.3	7.3	*	*	7.2	7.1
SUR/BTM	B	7.2	7.2	7.2	7.1	*	*	7.2	7.2
OCT 22	S	7.4	7.2	7.7	7.8	7.5	7.5	7.3	7.3
SUR	B	7.3	7.4	7.2	7.3	7	7	7.3	7.3
NOV 3	S	8.6	8.9	9.1	9.1	9	8.9	8.8	9
SUR/BTM	B	8.6	8.8	9	9	9.1	8.9	8.9	9
NOV 4	S	8.1	8.1	8.6	8.8	8.3	8.5	8.1	8.2
SUR/BTM	B	8	8	8.6	8.7	8.3	8.5	8	8.2
NOV 26	S	3.3	3.4	3.4	3.4	3.6	3.7	3.2	3.3
BTM	B	3.4	3.4	3.3	3.4	3.7	3.7	3.3	3.3
NOV 27	S	3.5	3.7	3.7	3.7	3.4	3.4	3.6	3.7
SUR/BTM	B	3.5	3.6	3.6	3.6	3.4	3.3	3.6	3.6
NOV 28	S	*	*	*	*	*	*	3.3	3.4
SUR	B	*	*	*	*	*	*	3.2	3.3
DEC 11	S	2	2	2	2	2	2	2	2
BTM	B	*	*	*	*	*	*	*	*

* - NO TEMPERATURE DATA

DARLINGTON SURFACE (S) AND BOTTOM (B) WATER TEMPERATURES AT GILL NET LOCATIONS

DATE; 1987		F		H		D		
NET; SET/LIFT		IN	OFF	IN	OFF	IN	OFF	IN
MAY 21	S	9.50	9.50	9.50	9.50	9.50	9.50	9.50
SRF/BTM	B	9.50	9.00	9.50	9.50	9.50	9.00	9.50
MAY 22	S	10.80	10.80	10.20	10.20	10.00	10.00	11.00
MAY 27	S	10.70	10.70	11.20	11.20	10.50	10.50	11.20
BTM	B	10.70	10.70	11.00	11.00	10.50	10.50	11.00
MAY 28	S	12.80	12.50	12.20	12.20	12.80	12.60	12.80
SRF	B	13.00	12.50	12.50	12.50	12.30	12.20	12.40
MAY 29	S	14.50	13.60	13.20	12.50	13.80	13.50	13.20
	B	13.00	12.80	12.50	12.50	13.60	13.00	13.00
JULY 7	S	16.00	16.10	16.50	16.60	16.00	16.10	16.00
BTM	B	12.80	12.00	11.90	9.90	12.50	11.00	12.90
JULY 8	S	17.80	17.50	17.00	18.00	18.00	18.70	18.80
SRF	B	15.40	14.80	13.00	13.80	12.90	13.90	16.20
JULY 9	S	19.30	19.50	19.50	19.80	19.90	20.50	20.50
	B	16.00	16.00	15.10	15.00	15.90	15.90	16.50
JULY 20	S	18.50	18.50	18.00	18.00	18.20	18.20	18.00
BTM								
JULY 21	S	18.00	18.00	18.50	18.50	18.00	18.00	18.20
SRF								
JULY 22	S	19.00	19.00	19.00	19.00	18.80	19.00	18.00
OCT 13	S	6.70	6.70	7.00	7.00	6.60	6.60	6.80
SRF	B	6.50	6.40	7.00	7.10	6.40	6.40	6.60
OCT 14	S	11.40	11.30	11.80	11.60	11.40	11.40	11.30
BTM	B	10.60	10.30	11.50	11.40	9.60	9.50	9.90
OCT 15	S	10.90	11.00	11.10	11.10	11.40	11.40	11.10
	B	10.10	10.10	10.20	9.80	10.10	10.00	10.40
OCT 16	S			11.50	11.70			
BTM	B			10.40	10.70			
OCT 26	S	9.20	7.90	9.10	9.20	9.20	9.30	8.90
SRF	B	7.50	7.20	7.80	7.60	7.20	7.20	8.40
OCT 27	S	9.40	9.30	8.90	8.90	9.10	9.00	9.00
BTM	B	9.30	9.20	8.80	8.80	9.00	9.00	9.00
OCT 28	S	9.20	9.10	9.00	9.00	8.80	8.80	8.80
	B	9.00	8.20	8.90	8.90	8.80	8.80	8.80
NOV 9	S	6.20	6.20	4.30	3.50	6.20	6.00	6.70
SRF	B	6.00	6.20	3.50	3.50	6.30	6.00	6.60
NOV 10	S	5.60	5.20	5.00	4.50	4.90	5.00	5.20
BTM	B	5.50	5.20	5.20	4.80	4.90	5.00	5.20
NOV 11	S	4.90	4.90	5.40	5.50	5.10	5.00	5.20
	B	4.90	4.80	5.40	5.50	5.00	5.00	5.20
DEC 1	S	3.80	4.10	3.50	3.50	4.00	4.50	3.80
BTM								
DEC 2	S	3.50	4.00	3.20	3.10	3.20	3.20	4.00
SRF								
DEC 3	S	3.50	4.00	3.50	3.50	4.00	4.00	4.00
DEC 14	S	4.60	4.70	4.20	4.30	4.10	4.10	4.30
SRF	B	4.70	4.70	4.20	4.20	4.10	4.10	4.30
DEC 16	S	3.70	3.70	3.40	3.60	3.80	3.90	3.50
BTM	B	3.70	3.70	3.50	3.80	3.70	3.80	3.50
DEC 17	S	3.30	3.40	2.90	2.90	3.40	3.40	3.20
	B	3.20	3.40	2.70	2.80	3.30	3.30	3.10

DARLINGTON SURFACE (S) AND BOTTOM (B) WATER TEMP. AT GILL NET LOCATIONS

DATE; 1988		F		H		D		
NET; SET/LIFT		IN	OFF	IN	OFF	IN	OFF	IN
MAY 10	S	9.8	7.50	8.30	7.90	7.50	7.50	8.50
BTM	B	7.50	7.40	7.10	7.50	6.80	6.70	7.60
MAY 11	S	6.40	6.20	7.60	7.70	7.60	7.60	7.40
SRF	B	6.90	6.90	6.50	6.10	6.50	6.60	6.50
MAY 12	S	7.10	7.00	7.30	9.40	7.10	7.90	7.20
	B	6.10	6.20	5.90	7.90	6.20	7.90	6.50
MAY 24	S	9.70	10.90	10.40	10.40	10.40	10.20	10.00
BTM	B	8.60	7.90	7.90	8.00	8.10	7.80	8.30
MAY 25	S	7.70	7.70	7.10	7.20	8.40	8.30	8.30
SRF	B	7.30	7.20	6.80	6.80	6.90	6.50	7.90
MAY 26	S	7.50	7.50	8.00	8.30	7.10	7.20	8.50
	B	-----	-----	6.80	-----	6.50	6.30	-----
JULY 4	S	10.70	10.60	9.60	9.40	9.30	9.80	9.30
BTM	B	7.30	7.10	6.70	6.40	6.70	6.40	7.40
JULY 5	S	11.20	11.70	11.50	11.20	11.20	11.30	11.80
SRF	B	7.80	7.60	7.50	6.90	7.60	7.30	7.90
JULY 6	S	14.30	12.40	12.90	13.00	14.10	13.10	16.40
	B	9.70	9.10	9.50	9.20	9.00	8.20	9.20
JULY 18	S	16.20	16.40	16.90	17.00	18.20	17.30	17.20
BTM	B	12.10	12.10	15.10	12.10	11.70	11.80	14.50
JULY 19	S	18.60	18.00	18.10	16.70	18.20	17.30	17.90
SRF	B	12.80	13.00	11.70	11.60	12.10	13.10	13.80
JULY 20	S	15.70	16.00	14.90	14.90	16.00	16.60	16.00
	B	13.50	12.80	12.10	12.00	12.20	12.20	12.60
OCT 3	S	14.70	14.80	14.90	14.90	14.90	14.90	14.90
SRF	B	14.70	14.80	14.90	14.90	14.70	14.60	14.90
OCT 4	S	14.60	14.80	14.90	14.90	14.80	14.80	14.90
BTM	B	14.60	14.80	14.90	14.90	14.80	14.80	14.90
OCT 5	S	14.70	14.80	14.80	14.90	14.90	14.90	14.40
	B	14.00	14.30	14.40	14.40	14.90	14.60	14.40
OCT 17	S	7.10	7.10	7.10	7.00	6.90	6.70	8.00
SRF	B	7.10	6.80	6.80	6.60	6.50	6.40	7.20
OCT 18	S	7.20	7.20					
BTM	B	7.00	7.00					
OCT 19	S	7.20	7.20	7.00	7.00	7.30	7.00	7.50
BTM	B	6.20	6.30	6.10	6.00	6.00	5.80	6.70
OCT 20	S			6.80	6.70	6.70	6.70	6.90
	B			6.30	6.20	5.80	5.80	6.30
NOV 1	S	6.10	6.10	5.80	5.80	5.40	5.40	6.00
BTM	B	6.10	6.10	5.80	5.70	5.30	5.30	6.00
NOV 2	S	6.30	5.50	5.70	5.30	5.30	5.30	5.70
SRF	B	6.20	5.50	5.60	5.30	5.30	5.30	5.70
NOV 3	S	5.20	5.20	5.80	5.70	5.00	5.00	5.70
	B	5.20	5.20	5.70	5.70	5.00	5.00	5.70
NOV 16	S	5.80	5.50	5.50	5.30	5.70	5.40	5.50
BTM	B	5.70	5.50	5.40	5.30	5.70	5.30	5.30
NOV 18	S	5.90	6.00	5.30	5.30	5.60	5.50	5.10
	B	5.90	6.00	5.30	5.30	5.60	5.50	5.00
NOV 23	S	4.80	4.90	4.80	4.90	4.90	5.00	4.50
SRF	B	4.70	4.90	4.60	4.80	4.80	4.90	4.30
NOV 24	S	4.80	4.70	4.90	4.90	4.80	4.80	4.80
	B	4.60	4.60	4.90	4.90	4.80	4.80	4.70
DEC 14	S	1.50	1.50	2.00	2.70	2.00	2.00	2.00
BTM	B	1.50	1.50	2.00	2.50	2.00	2.00	1.50
DEC 16	S	1.70	1.30	1.20	1.00	2.00	2.00	1.30
	B	3.00	3.00	1.70	2.00	3.10	3.00	1.80

APPENDIX C

DARLINGTON NGS FISH SPECIES COMPOSITION

COMMON NAME	SCIENTIFIC NAME
Longnose gar	Lepisosteus osseus
Alewife	Alosa pseudoharengus
Gizzard shad	Dorosoma cepedianum
Coho salmon	Oncorhynchus kisutch
Chinook salmon	Oncorhynchus tshawytscha
Rainbow trout	Oncorhynchus mykiss
Brown trout	Salmo trutta
Lake trout	Salvelinus namaycush
Lake whitefish	Coregonus clupeaformis
Round whitefish	Prosopium cylindraceum
Rainbow smelt	Osmerus mordax
Longnose sucker	Catostomus catostomus
White sucker	Catostomus commersoni
Redhorse suckers	Moxostoma sp.
Lake chub	Couesius plumbeus
Carp	Cyprinus carpio
Brown bullhead	Ictalurus nebulosus
White perch	Morone americana
White bass	Morone chrysops
Rock bass	Ambloplites rupestris
Smallmouth bass	Micropterus dolomieui
Yellow perch	Perca flavescens
Walleye	Stizostedion vitreum vitreum
Freshwater drum	Aplodinotus grunniens
Sculpin	Cottus sp.

APPENDIX D

ANALYSIS OF VARIANCE RESULTS (P>0.05)

LAKE TROUT CATCH LOCATION X YEAR (1985 - 1988) MAY - DECEMBER

TWO WAY ANOVA - RANDOM BLOCKS

SOURCE	SUM SQUARES	DF	MEAN SQUARE	F-RATIO	SIGNIF
REPS	5222.576	6			
TREAT A	405.4888	3	135.1629	1.830277	NS
TREAT B	1290.185	3	430.0618	5.823579	SD
AXB	326.6451	9	36.2939	.4914652	
ERROR	6646.353	90	73.84836		
TOTAL	13891.25	111			

DUNCAN'S TEST

1985	1988	1987	1986
3.5	9.357	9.982	13.036

LAKE TROUT CATCH LOCATION X DEPTH 1985 - 1988 MAY - DECEMBER

TWO WAY ANOVA - RANDOM BLOCKS

SOURCE	SUM SQUARES	DF	MEAN SQUARE	F-RATIO	SIGNIF
REPS	9898.67	6			
TREAT A	1021.013	3	340.3378	2.707979	NS
TREAT B	2269.504	1	2269.504	18.05785	SD
AXB	5.90625	3	1.96875	1.566483E-2	
ERROR	5278.545	42	125.6796		
TOTAL	18473.64	55			

LAKE TROUT CATCH X MONTH (MAY - DECEMBER) 1985 - 1986

ONE WAY ANOVA

SOURCE	SUM SQUARES	DF	MEAN SQUARE	F-RATIO	SIGNIF
FACTOR 1	17962.3	6	2993.72	3.46989	SD
ERROR	18118.2	21	862.77		
TOTAL	36080.5	27			

APPENDIX D (cont'd)

ANALYSIS OF VARIANCE RESULTS (P>0.05)

ROUND WHITEFISH CATCH LOCATION X YEAR (1984 - 1988)

OCTOBER - DECEMBER

(BOTTOM NETS ONLY)

TWO WAY ANOVA - RANDOM BLOCKS

SOURCE	SUM SQUARES	DF	MEAN SQUARE	F-RATIO	SIGNIF
REPS	7694.734	2			
TREAT A	1133.259	3	377.7531	1.909269	NSD
TREAT B	908.2375	4	227.0594	1.147621	NSD
AXB	1767.162	12	147.2635	.7443107	NSD
ERROR	11277.58	57	197.8522		
TOTAL	22780.97	79			

ROUND WHITEFISH CATCH LOCATION X DEPTH 1984 - 1988 MAY - DECEMBER

TWO WAY ANOVA - RANDOM BLOCKS

SOURCE	SUM SQUARES	DF	MEAN SQUARE	F-RATIO	SIGNIF
REPS	26105.03	6			
TREAT A	1624.304	3	541.4345	.5810119	NSD
TREAT B	12932.16	1	12932.16	13.87747	SD
AXB	1407.804	3	469.2679	.50357	NSD
ERROR	39139.04	42	931.882		
TOTAL	81208.34	55			

ROUND WHITEFISH CATCH X MONTH (MAY- DECEMBER) 1985 - 1988

ONE WAY ANOVA

SOURCE	SUM SQUARES	DF	MEAN SQUARE	F-RATIO	SIGNIF
FACTOR 1	46041.1	6	7673.51	16.9115	SD
ERROR	9528.66	21	453.746		
TOTAL	55569.7	27			

APPENDIX D (cont'd)

ANALYSIS OF VARIANCE RESULTS (P>0.05)

ALEWIFE CATCH LOCATION X YEAR (1985 - 1988) MAY - DECEMBER

TWO WAY ANOVA - RANDOM BLOCKS

SOURCE	SUM SQUARES	DF	MEAN SQUARE	F-RATIO	SIGNIF
REPS	9.997695E6	6			
TREAT A	27974.65	3	9324.883	.1611962	NSD
TREAT B	246282.8	3	82094.26	1.419137	NSD
AXB	316401.9	9	35155.77	.6077264	NSD
ERROR	5.206322E6	90	57848.02		
TOTAL	1.579468E7	111			

ALEWIFE CATCH LOCATION X DEPTH 1985 -- 1988 MAY -- DECEMBER

TWO WAY ANOVA - RANDOM BLOCKS

SOURCE	SUM SQUARES	DF	MEAN SQUARE	F-RATIO	SIGNIF
REPS	1.937031E7	6			
TREAT A	45110.89	3	15036.96	8.878897E-2	NSD
TREAT B	1.710803E6	1	1.710803E6	10.1018	SD
AXB	523038.1	3	174346	1.029463	NSD
ERROR	7.112961E6	42	169356.2		
TOTAL	2.876223E7	55			

ALEWIFE CATCH X MONTH (MAY - DECEMBER) 1985 - 1988

ONE WAY ANOVA

SOURCE	SUM SQUARES	DF	MEAN SQUARE	F-RATIO	SIGNIF
FACTOR 1	3.88763E7	6	6.47934E6	13.9367	SD
ERROR	9.76321E6	21	464915		
TOTAL	4.86395E7	27			